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Master in Strategy, Innovation and Sustainability

Thao Thu Le

Understanding tourist behavior towards green hotels in
Vietnam

Case Study: Hotel Vietnam

Master's Thesis

Supervisors: Associate Professor Laura Alberada and Associate Professor Anssi Tarkkiainen



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<p>The purpose of this master thesis is to understand how consumers view on sustainable practices in the hospitality industry, mainly green hotels in Asia. The research focuses on green hotels in Vietnam. I am going to do research to study the drivers to stimulate Vietnamese tourists to choose green hotels. The structure the thesis starts from the purpose as to study the drivers to stimulate Vietnamese tourists to choose green hotels; to Research Background and Context which also shows the main Research Question. After that, I mention about Research method as quantitative method with 2 main methods as Exploratory Factor Analysis and Linear Regression. In the end of the thesis, I discussed the Research Findings after the analysis and discuss finally about the conclusion about hospitality in Vietnam and in Asia.</p> <p>I adopt a theoretical framework that includes the integration of three main theories and concepts: the Theory of Planned Behavior, Green Consumption and Green Hospitality. I focus on the</p>	



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literature of behavioral and attitudes, including cognition (beliefs), affects (feelings) and overall image (a combination of cognition and affects). Cognition represents consumers' beliefs and knowledges about the object, whereas affect refers to their emotional response (feeling, moods) towards the object.

In order to support the answers of the main research question, I built a research framework based on 3 theories and the model concept.

The research methods is based on a quantitative method, using factor analysis and linear regression. The empirical research design is based on a survey methodology. I gather data based on a survey consisting of 10 questions delivered to Vietnamese tourists who have stayed in Hotel Vietnam during 2018, which is considered one of the greenest hotels in Vietnam, according to Trip Advisor. 10 questions range from tourists' socio-economic status, hotels' value attribute and quality attribute, tourists' own feelings towards green hotels and tourists' perceptions on green hotels.

Using factor analysis and linear regression as two main statistics methodologies, I analyze three hypotheses. The results came out as strongly positive. Some of the socio-economic status, hotels' attributes and individual feelings of the tourists influence greatly on tourists' overall image about green hotels.



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1. INTRODUCTION

1.1 Research background

Environmental sustainability has been a major concern for many industries which also includes hospitality industry (Gustin & Weaver, 1996). As stated by Ryan et al. (2010), from South and Asia to other area as the island Pacific, their government have been imposed new efforts into sustainable innovation in higher education field, particularly environmental innovation. Not only Asian governments in general, but also through the *Decade of Education for Sustainable Development (DESD) 2005-2014*, United Nations have invested in such area. In 2015, OECD published their reports on green growth in Southeast Asia. As written in the report, due to the fact that economic growth has been significant in recent years, leading to many environmental destruction, green growth is one of the main factors in Southeast Asia in the 21st century (OECD, 2015). Stig Traavik, Ambassador of Norway in Indonesia was interviewed in 2014 and reported that Indonesian Chamber of Commerce and Industry in Kadin put their efforts in commitment on zero deforestation; and to transform palm oil more sustainable in Indonesia. OECD announced three golden opportunities to commit to green growth in Southeast Asia, including firstly to maintain natural wealth in every region, secondly to commit to clean and resilient infrastructure and thirdly to become a hub of green investment not only Asia in general and in Southeast Asia particularly. Europe also imposed twelve policies that are influencing directly the use of natural resources or land in East Asia. To name a few, *Green Infrastructure Strategy* was imposed in 2013; *Habitats Directive* in 1992; *Thematic Strategy on the Urban Environment* in 2006; *Renewable Energy Directive* in 2009; *Biodiversity Strategy to 2020* in 2012; *Water Framework Directive* in 2008; *Forest Strategy* in 2013; *Common Agricultural Policy* in 2013; *Climate Change Adaptation Strategy* in 2013; *Invasive Alien Species Regulation* in 2014; and *Trans-European Network-Transport* in 2014 (Bouwma et al., 2018).



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Currently there is a growing understanding of sustainability in a major demand from hospitality industry in Southeast Asian countries. According to Kaiwa (2017), the constitution of the **Association of Southeast Asian Nations (ASEAN) Economic Community (AEC)** in 2015 brings to Southeast Asian countries a growing opportunity on economic and cultural exchange that influences the tourism industry. Tourism industry has been one of the necessary cooperation areas in SAARC (South Asian Association for Regional Cooperation). During a meeting held in Kathmandu in 2014, all leaders from SAARC agreed to promote South East Asian countries as a sustainable destination for foreign tourists. Vietnamese government no doubt has introduced a new tourism plan as “*Strategy on Vietnam’s tourism development until 2020, vision to 2030*”. The aim of the strategy is to develop Vietnamese tourism into a new level, especially stimulating eco-cultural tourism with exploration of culture and ethnic minorities. (Vietnamese government, 2011) A number of stakeholders has been involved in solving those environmental problems including primary stakeholders and secondary stakeholders such as consumers, non-governmental organizations and activist groups. (Martinez Garcia de Leaniz et al, 2017)

In this research I study green hotels. As the issue is mentioned above, responsible hotels which compromise their activities into ecologically conscious actions are called green hotels. According to *Green Hotel Association* (2015) “green hotels are those groups of hotels which impose policies to reduce environmental impacts and their operations are focusing on environmentally friendly activities”. Research shows that there are three main strategies adopted by green hotels: (1) energy efficiency and conservation programs, (2) waste reduction programs and (3) water conservation programs. (Liu and Sanhaji, 2010)

Many hotels in the world have adopted green practices. Regarding these changes, a main research gap is why customers decide to stay in green hotels. This has been increasingly researched by many researchers. According to Laroche et al, consumers who are taking their activities into ecologically conscious awareness are typically women in a pre-middle-age with a



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higher level of education; thus, belong to wealthy socio-economic groups. (Laroche et al., 2001). Furthermore, customers attending to green hotels' search for hospitality services that provides both functional performance and environmental performance. (Manaktola & Jauhari, 2007). That is why their decision to choose green hotels depend on hotels economic performance aligned with green practices in their operations. Conscious customers accept to purchase more for several green products or services. (Noor et al, 2014)

In the research of Lee et al. (2010), that studied why western and international consumers or tourists choose green hotels shows differed reasons regarding different cultural background, countries and continents, and also with evolving patterns. For example, Munoz & Rivera (2002) conducted a research to find out why tourists are willing to purchase for their green certification of hotels in Mexico. Kasim did research on Malaysian responsible hotels and how their tourists care about it. Nimri et al (2017) found out that Australian resident's purchase decisions on green hotels are linked to choosing to green accommodation. In parallel, research has studied different tourist behavior, based on other nationalities. Bohdanowicz (2006) has found out a research in Poland that tourists are less aware of green attitudes towards tourism. Their concerns focus more on location, price, service, hotel image and environmental records. Besides, as Bergin-Seers & Mair (2009) stated in their research that active tourists are more interested in ecologically conscious activities while fewer active tourists are involved in such these programs. Other researches have been focusing their research in green hotels and in tourists' behaviors to choose hotels to stay. Therefore, the goal of the master thesis is to find out about the tourist's behaviors when they choose hotels to stay.

Although there are lots of researches that invested in figuring out why tourists want to pay for staying in green hotels, there are still some researches that found out the analysis of local tourist in East Asia. For example, according to Chan & Baum (2007), ecologically conscious tourists in Malaysia tend to visit a destination since they are interested in such activities of nature, wildlife

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and ecological activities even though there are no significant results of whether they chose green hotels to stay or not.

The purpose of this master thesis is to understand *how Asian consumers view on sustainable practices in hospitality industry, mainly green hotels in Vietnam in particular*, and in Asia in general. The specific country to choose is Vietnam, where the industry of hospitality in general and eco-friendly hotels in particular have been grown lately. The research aims to study Vietnamese tourists' behaviors towards green hotels in Vietnam and in a longer vision, expanding the research about sustainability hospitality in Asia. Surveys will be delivered in papers to Vietnamese guests who were staying in Hotel Vietnam, which is defined as one of the greenest hotels in Vietnam.

1.2 Research context in green hotel industry and consumer views in Vietnam

Several researches have proved how western international tourists behavior in different countries and continents are aware of the importance of green hotels. According to these listed researches on green hotels are conducted across countries such as countries in Asia, countries in Europe and countries in Africa. Especially, when mentioning about researches in Asia, only Taiwan, China and Thailand have conducted ones related to green hospitality. Some of the recent researches are listed below:

- Munoz & Rivera (2002) conducted a research to find out why tourists are willing to pay for their green certification of hotels in Mexico. The results were found out that 53% of Mexican tourists regard water conservation and how to reduce pollution of water at the top of the most concerned issues.
- Kasim (2004) did a conclusion in his research "Socio-environmentally responsible hotel business: do tourists to Penang Island, Malaysia care?" that Malaysian tourists when

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travelled to destination are willing to pay for rooms with water saving programs, energy saving programs and information on local ecotourism attractions.

- According to Manaktola & Jauhari (2007), only 15% of tourists are likely to pay for environmental initiatives and it does mean that less Indian tourists are into green services in the hotel industry.
- Yesawich. P. C (2008) concluded that 8 out of 10 Americans are into environmental initiatives; in particular, 4 out of 10 leisure travelers are likely to pick green hotels to stay.
- Mensah and Mensah (2013) found out that a majority of tourists in Accra did prefer to stay in a hotel with environmentally friendly programs.
- Chen, W.J (2014) stated that tourists in Taiwan own a positive attitude towards environmental friendly hotels while in China, most of the tourists do not show their correlation between environmental behaviors and their intention to stay in environmental friendly hotels.
- Bohdanowicz (2006) compared between Swedish tourists and Polish tourists when visiting a destination and choose their places to stay. When Swedish tourists tend to show more positive attitudes towards environmental friendly services, Polish tourists are still in the beginning phase of realizing the existence of eco hotels.
- Nimri et al (2017) found out that Australian residents purchase decisions on green hotels are linked to choosing to green accommodation.
- Mihalic et al. (2012) developed their hospitality sustainability business model (HSBM) to find out about the sustainability goals in the hotel industry in Slovenia.
- Al-Aomar & Hussain (2016) did an assessment on green practices in the hotel industry in the United Arab Emirates (UAE).
- Reid, Johnston & Patiar (2017) examined the green building certification program applied to hotel industry in Asia-Pacific.



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Even though Vietnam has witnessed a significant growth in tourism, there are not many researches in Vietnam that focus on green hotels (Mishra, 2006). As there hasn't yet researches in studying the consumer perceptions and view of Vietnamese tourists towards green hotels, this research will focus on studying Vietnamese tourists' behaviors towards environmental-friendly hotels.

Vietnam is a country where their situation of tourism industry has been grown positively in recent years. Since there are such beautiful and exotic natural sites, thousands of tourists are visiting Vietnam every month. Also, according to The Culture Trip, eco-friendly hotels became more and more popular in Vietnam thanks to many national parks and jungles and reserves. (The Culture Trip 2018).

Unfortunately, it has negative consequences on such environmental aspects due to the large number of visitors from around the world. Hundreds of people visit touristic areas in Vietnam such as Ha Long bay, Sapa, Phong Nha cave and Phu Quoc. However, the more visitors travel to the places, the more damaged the environment become. (Ai Vuong, 2016)

Only one research, up to now, which was conducted in 2005 where most of the respondents are from 3-star hotels from South Vietnam. The results were focused on energy consumption, water consumption and wastewater consumption in hotels in Vietnam. According to the results, 2 – 4-star hotels in Vietnam are accounted to consume lots of electricity for their usage in air conditioning, lighting, appliances, water heating and water pumping. Water consumption is also other issue where most of the activities are from gardening, guestrooms, Wastewater treatment in hotels in Vietnam is not a common practice since few hotels are responsible for treating waste consumption after tourists' usages. (Trung & Kumar, 2005)

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Since there are not many researches on green hotels in Vietnam, there are not respectively researches on how Vietnamese consumers consider to choose green hotels as their destinations to stay during their holidays. Therefore, the thesis's aim is to find out Vietnamese tourists' reasons, including their beliefs and feelings, when choosing green hotels to stay.

1.3 Research questions, and objectives

In this master thesis, I study a main research question of my thesis: "What are the drivers to boost Vietnamese tourists to choose green hotels to stay?"

In this research, I study green hotel image as well as tourist behavioral intentions. I follow Lee, et al (2010) research, motivated by the situation of global warming. The effect of global warming has been too vital that people have taken "green management" into consideration. "Green management" in the hotel industry targets at making less the use of non-durable goods consumption including energy use, water wastage, air pollution, water and oil pollution (Italian National Agency for the Protection of the Environment and for Technical Service, 2002). Lee et al (2010) tested the growth of green hotel image by using the concept and the **model of cognitive, affective and overall images**; as well as explored tourists' behavioral intentions to revisit the hotels, give positive feedbacks and willing to pay premium. They study the concept of image formation, including cognitive image, affective image and overall image was persistently used in the research journal.

According to Kotler, Haider and Rein (1993), image is "a conceptualization that reflects the set of beliefs, ideas and impressions that a public has of a product, service destination, person, firm or brand. Also, researchers found out that formation of image has been regarded as a main research area in the area of hospitality and tourism as well in business ones.

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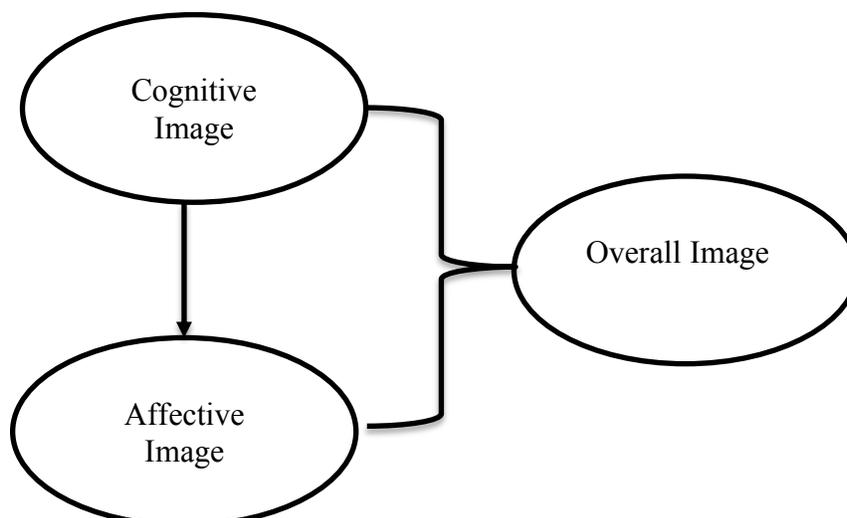
Researchers concluded that image is structured through three phases: (1) Cognitive Image, (2) Affective Image, and (3) Overall Image (Lee et al., 2010). These are respectively linked to shape of **Beliefs and Feelings** (Doyle & Fenwick, 1974; James, Durand, & Dreves, 1976). **Cognitive Image** is the *consumers' beliefs, knowledge and understanding about a product/service*, while **Affective Image** *concentrates on how consumers feel about the product/service*. Both of them contribute to the **Overall Image** that is *the creation of favorable behavioral intentions*.

Therefore, Cognitive Image is initial phase of Affective Image, in which the evaluation and feedback of the object leads to the feeling of consumers toward the object. (Lee et al., 2010).

In this research, I study how Cognitive Image (CI) and Affective Image (AI) that contribute to the Overall Image of green hotels in Vietnam, which defines as the decision of consumers towards a product/service adopted by tourist behavioral intentions (Lee et al., 2010).

Baloglu and McCleary (1999) describe CI of a destination through experience, attractions and value/environment as their initial phase. Then they adapted AI into the process as arousing/sleepy, pleasant/unpleasant to figure out tourists' feeling towards the destination.

Figure 1: The Model of Image Formation





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Source: based on Lee, et al. (2010)

To test the growth of green hotel image, Lee., et al (2010) came up with three hypotheses:

- (1) H1: CI positively impacts a green hotel's AI.
- (2) H2: CI positively impacts a green hotel's overall image.
- (3) H3: AI positively impacts a green hotel's overall image.

This research thesis is based partly on Lee., et al (2010)'s research by using the model of image formation (cognitive image, affective image and overall image). The purpose of the research is to figure out the drivers of Vietnamese tourists when choosing green hotels to stay. Vietnamese tourists' beliefs and knowledges on green hotels are symbolized as cognitive image while Vietnamese tourists' individual feelings represents as affective image. According to the model of image formation, hotel guests' beliefs and knowledges and feelings have both impacts on overall image.

Regarding this main research question, *what are the drivers to boost Vietnamese tourists to choose green hotels to stay*, and the concept of image formation (Lee et al, 2010), two sub-questions are also studied:

RQ1.1: What are the tourists' beliefs and knowledges on green hotels?

RQ1.2: What are the tourists' feelings to choose green hotels?

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1.4 Research theory: literature review

As the thesis focuses on studying Vietnamese tourist behaviors when traveling in Vietnam and in their intention to choose green hotel, the three relevant theories used in the thesis are respectively:

- The Theory of Planned Behavior
- Green consumption
- Green hospitality.

To sum up The Theory of Planned Behavior and Green hospitality and Green Consumption, I apply The Theory of Planned Behavior into the Hospitality Industry.

Firstly, The Theory of Planned Behavior focus on the people' decision when they need to perform their behavior based on three motivational influences: attitudes, subjective norms and perceived behavioral control (Ajzen 1991). The second theory concentrates on green consumption. According to Joshi & Rahman (2015) green consumption refer to the analysis of consumer behaviors when they are aware of environmental impacts when purchasing their products or services. Beginning with the definition of green consumption, it is followed by theories on consumer behavior towards green products, the profile of green consumers and pro-environmental behavior. Schena et al (2015) introduce briefly about the behaviors of customers who purchase green products and the reasons why they choose green products to buy. Green consumer profile is followed to describe the profile of consumer including socio-demographic characterization (age, gender, education, income,) The last theory of green consumption is pro-environmental behavior. This part explains more detailed about factors that encourage consumers to buy green products. This chapter is also linked somehow to TPB The Theory of Planned Behavior.



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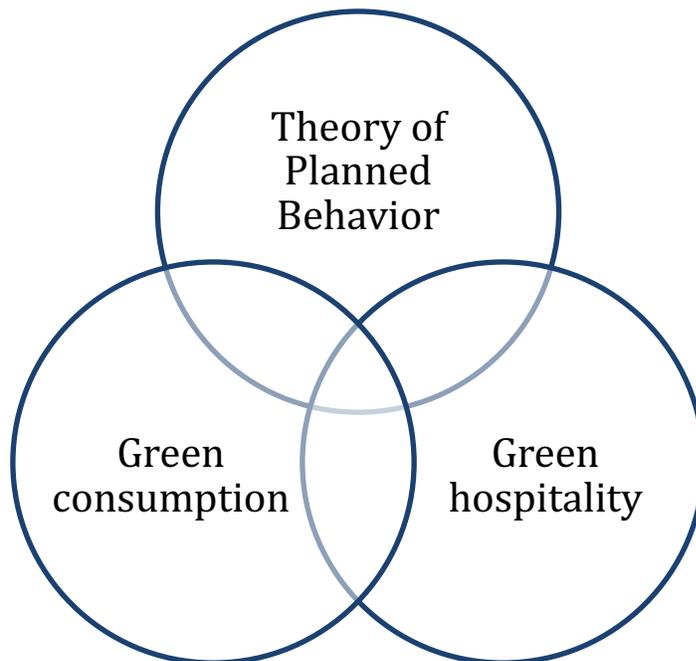
Third, I also study the theory of green hospitality. Kim & Han (2010) define green hospitality as the analysis of the hospitality industries and its environmental impacts and behavior. They study the connection between hospitality sector and tourists and leisure travelers when traveling and choosing accommodation to stay (Millar et al., 2012). Moreover, green hospitality in Asia and green hotels in Vietnam which are relevant to the topic of the thesis are written.

The part of The Theory of Planned Behavior is going to figure out Vietnamese visitors' attitudes towards green hotels (their knowledges and their expectation), furthermore social factors that boost them to perform as green customers and their eases and the difficulties to choose green hotels to stay during their journeys.

The part of Green Consumption is going to describe briefly their profile of green tourists and their motivational and their context factors that boost them. Motivational and contextual ones do support TPB in the way that it summarizes TPB in a more concise profile of green tourists. After the survey and figure out their profile, the thesis's author would figure out if they are green tourists or ecotourists.

The part of Green Hospitality will give a brief explanation of green hotels. Green visitors might be leisure travelers and businesses, which have different attitudes and different motivational and contextual factors contributing to their commitment. Programs in green hotels also include to figure out if visitors commit to such programs during their stays. In the end, in the part of TPB in hospitality provide a full image of the analysis of hospitality industry in Vietnam and EFA which is Environmentally friendly Activities which differentiate people who are ecological or not.

Figure 2: Theoretical Research



1.5 Research method: The introduction of factor analysis and linear regression

As the main thesis' aim is to find out what are the drivers of Vietnamese tourists to choose green hotels to stay, the thesis research is mainly conducted on a quantitative method, based on survey research. I build on a deductive research process, based on the development of a conceptual model build on the model of affective, cognitive and overall images in the Theory of Planned Behavior.

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Based on the conceptual model, I design a survey with 10 main questions. The questionnaire is delivered through paper surveys with the help of hotel staffs. After 2 weeks of collecting answers from Vietnamese tourists who were staying in that hotel I gathered 79 surveys. I input the answers into an excel file and started using SPSS to analyze the data. Two statistic quantitative methods were using to analyze the data were Exploratory Factor Analysis and Linear Regression.

1.5.1 Exploratory Factor Analysis in this research

According to Spackman (1927), *exploratory factor analysis* has been a frequent used statistical procedure in psychological research. Compared to other types of analysis, exploratory factor analysis requests researchers take performing data into more considerations. Some issues to be named. The first issue to be considered is the nature of the sample, and connect it to the goal of the research, and if factor analysis matches the outcomes; while the second issue consider the fact that researchers must review the procedure if it fit the model of the data. Followed by the second issue, the third one stands for the responsibility of researchers to make the decision of choosing the number of factors to be included in the research. The final issue comes to the method that researcher rotates the initial factor solution to a final solution. (Fabrigar, L. et al, 1999).

Researchers concluded that EFA (Explanatory Factor Analysis) is able to demonstrate more accurate and adequate results when common factor is performed under many measured variables. Hence, taking into consideration the nature and the number of common factors is important before input the data. In other words, the number of measure variables need to be 3 or 5 times more than the number of expected common factors. Decision on sample size is significant important to some extent of the research results. (MacCallum et al, 1999). Velicer & Fava (1998) agreed that the function of measure variables is influenced by the level of overdetermination of the factors. Estimated population value is one significant criteria to decide the sample size.



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Browne & Sugaware (1996) suggested that a desired level of power and the nature of assumed population value is needed to reach the goal of the EFA research.

Not only the nature of the sample size is obligatory and necessary to be taken into concern, but also the goal of the research suits the EFA method. EFA is to measure the correlation of the measured variables. In the other words, EFA is applied when there exists a need to recognize latent constructs under the power of measured variables.

EFA has become one of the most used psychologically statistical type of analysis, even though there have been many debates of its function in terms of limitation to contribute to the theory improvement ((Gould, 1981) and (Hills, 1977) and (Overall, 1964)). T. Swift also argued that factor analysis did not contribute to the adequate and meaningful results from data. However, Cattell (1978) and Comrey (1978) concluded that the contribution of EFA to theory development depends on the manner of the implementation.

Regarding the steps of using EFA to analyze the data, Thompson (2004), Hetzel (1996), Kieffer (1999) and Gorsuch (1983) were primers for being user-friendly in the factor analysis.

The first step of the analysis is the *Correlation Matrix*, that illustrates the Correlation, Variance/Covariance to analyze. This step is tested by KMO, Barlett's Test and Screeplot. The second step is *Factor Extraction*, which is tested by PCA (Principal Component Analysis) with Eigenvalue and Variance Percentage. The purpose is to extract variance common from the first step (Matrix of Association). Thompson (1988) argued that Screeplot is more appropriate than Eigenvalue (According to M Rahn (The Analysis Factor), eigenvalue is "a measure of how much of the variance of the observed variables a factor explains. Usually the significance level is >1 ") even though it leads to significant over-extracted results. The third step is *Factor Rotation*, which include two categories: orthogonal and oblique. After factors are rotated, factors are correlated

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with each other. The fourth step is *Result Interpretation* as to interpret the results of which factors are appropriate for the analysis.

Finally, to report the result of Exploratory Factor Analysis, the four steps of Exploratory Factor Analysis are respectively explained with illustrated tables and figures: Descriptive Statistics includes Mean value, KMO & Barlett's Test to test if these factors are satisfactory for Exploratory Factor Analysis to proceed (Step 1), Total Variance Explained with Eigenvalue and Screeplot graph to extract factors (Step 2) and Component Matrix to rotate factors (Step 3) and finally, interpreting results part is the last step to explain which is the last factor that contribute meaningfully to the analysis (Step 4).

As the research's goal is to figure out the drivers of Vietnamese tourists to choose green hotels to stay and also, according to (Gould, 1981; Hills, 1977; Overall, 1964). EFA is the most used psychologically type of analysis, the study used EFA to check the dimensions associated with Cognitive Image, Affective Image and Overall Image according to the applied theory of Image Formation into the thesis.

1.5.2 Linear regression in this research

According to Uyanik & Guler (2013), **regression analysis** is a technological tool to measure the relationship among variables, which are having cause-effect relations. Two types of regression analysis, regarding the quantity of variables, are univariate regression and multivariate regression. While univariate regression stands for the relationship between a dependent variable and an independent variable, multivariate regression stands for one dependent variable and many independent variables.

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Tripepi et al (2008) discuss about the two main types of regression analysis regarding the nature of variables (continuous or categorical). **Linear regression** is a correlation analysis, which look into the degree of correlation between continuous variables, particularly demands that dependent variable is continuous; whereas logistic regression stands for correlation analysis between an independent variable (continuous or not) and a dichotomic dependent variable.

According to Laerd Statistics, Linear regression is used to predict the value of a variable related to the other variable, in other words to measure the value of dependent variable and independent variable. Such analysis can be measured by linear regression on SAS Statistics need to pass six assumptions that are required to give accurate measurement.

- Assumption 1: Two variables are measured at the continuous level. For example, they are interval or ratio variables.
- Assumption 2: There needs to be a linear relationship between the two variables by creating a scatterplot using SPSS Statistics.
- Assumption 3: There should be no significant outliers. Such outlier will be a point on scatterplot that is far from the regression line.
- Assumption 4: There should have an independence of observations, which can be checked by the Durbin-Watson statistics, a simple test to run using SPSS Statistics.
- Assumption 5: Data need to show the attribute of homoscedasticity.
- Assumption 6: The errors of the regression line are approximately normally distributed.

Based on the discussion in Uyanik & Guler (2013), Tripepi et al (2008) and Laerd Statistics, in this master thesis, linear regression analysis is the analysis tool to measure the 3 hypotheses, according to main research question and two sub questions. Independent variables and dependent variables are both continuous, which measure the Likert scale from Strongly Disagree (7) to



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Strongly Agree (1). I apply Linear Regression to measure three hypotheses based on Lee et al (2010)'s research.

This linear regression analysis looks at some main points, consisting of Descriptive Statistics (with Mean value); the degree of Correlation that indicates the degree of correlation between two variables; the independence of observation Durbin-Watson and Anova's test, followed by Coefficient's test. A histogram and a Scatterplot, which shows the values for typically two variables for a set of data.

1.6 Master's Thesis Structure

Structure of the thesis continues from the next section, the literature review. The part of Literature review includes 4 parts: The Theory of Planned Behavior, Green Consumption, Green Hospitality and The Theory of Planned Behavior applied into hospitality industry. Every minor part is divided into smaller parts. Followed by Literature Review, the part of Quantitative Research Process will explain in detail every step from collecting quantitative data to reporting data. This part will include 5 main steps: Planning of Quantitative Research, Data Collection and Data Analysis, Analyzing quantitative data, The Test of Reliability Measurement and Survey Research Design, will consist of 10 questions delivered to tourists. The next part is Research Findings. In this part, I will analyze tourists 'backgrounds; then check the dimensions of Cognitive Image, Affective Image and Overall Image by applying the method of Exploratory Factor Analysis; after that, I will test the correlation between variables in 3 hypotheses in this research by Linear Regression; and finally check their reliability by measuring Cronbach's alpha. In the final part, which is Discussion and Conclusion, I include the discussion on how the finding of this research connects to the literature and theories studied, and support the research model. I study the reasons of Vietnamese tourists when choosing green hotels to stay. The Discussion part will base on the analysis of the Research Findings part, demonstrates what are the drivers of

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Vietnamese tourists towards green hotels in Vietnam. The Conclusion part will expand the analysis of discussion part into a comprehensive analysis and scale, which is Southeast Asian and Asian countries.

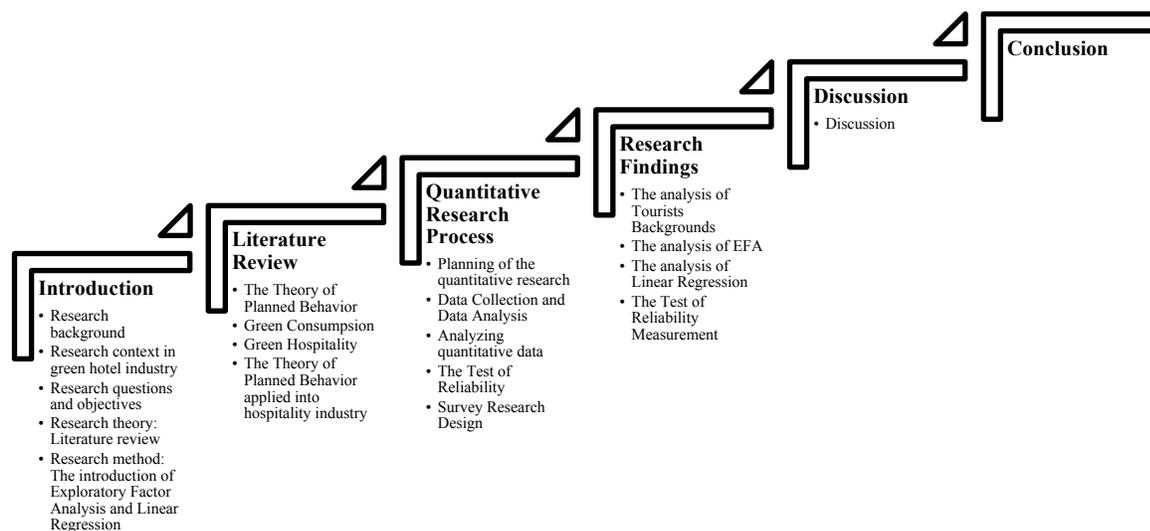


Figure 3: Master Thesis's Process

2. LITERATURE REVIEW

This thesis is based on the analysis of three main theories in customer behavior: the theory of planned behavior, green consumption and green hospitality. In the end, author will discuss The Theory of Planned Behavior into Hospitality industry, which will include an important part as Image Formation. This part includes critical knowledge on Cognitive Image, Affective Image and Overall Image, which influences on tourist's behaviors towards green hotels.



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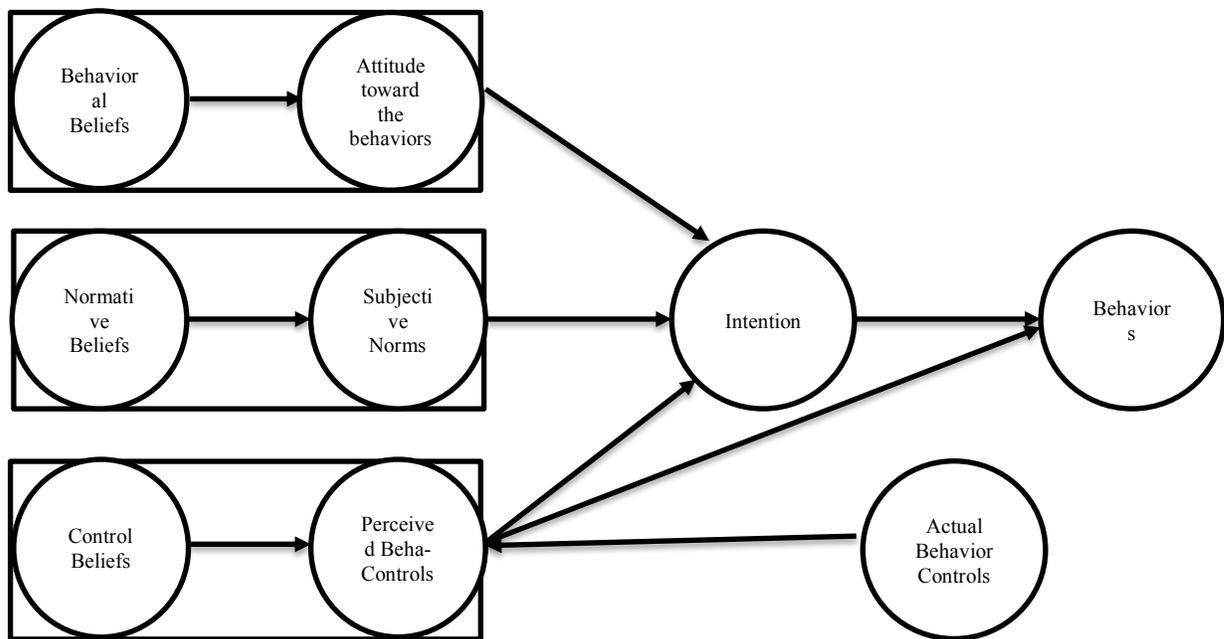
2.1 The Theory of Planned Behavior

The Theory of Planned Behavior shows people's decision when they need to perform their behavior based on three motivational influences: attitudes, subjective norms and perceived behavioral control (Ajzen 1991). In addition, there is one non-motivation which indicates the condition of human behavior consisting of the availability of time and conditions. The theory builds on these main concepts as explained by Ajzen (1991):

- Attitudes: Attitude indicates their favorable or unfavorable evaluation of the person when they make their option towards a context. (Renzi, 2008). According to Han, Sheu & Hsu (2011), attitude towards a behavior is a salient beliefs' function or this attitude will be the perceived consequences of the behavior that certainly result in clear consequence. For instance, when customers decide to stay in green hotels, they already perceived the consequences that they can enjoy the eco-life including healthy environment, eating fresh food and behave environmental-friendlier. (Han, Hsu & Sheu, 2011, 326(334))
- Subjective norms: According to Ajzen (1991), he defines "subjective norm" as the perceived social pressure to perform or not to perform the behavior". Subjective norms are, according to Han, Sheu & Hsu (2011), the perceived opinions of influential individuals such as families, relatives and co-workers. Subjective norms are also called as the function of "normative beliefs", which are the capability of individuals to approve or disapprove behavior. For example, when customers perceived their behavior of choosing green hotel as a proper behavior, they will be more motivated to visit a green hotel thanks to the perceived social pressure. (Han, Hsu & Sheu, 2011, 326(334))
- Perceived behavioral control: According to Ajzen (1991), it is defined as the "perceived ease or difficulty of performing the behavior". Perceived behavioral control is also

regarded as the function of control beliefs, which are the performance of a specific behavior based on the presence or the absence of necessary resources. Baker et al. (2007), Chen et al. (2006), Conner & Abraham (2001) and Taylor & Todd (1995) confirmed in their research that people positively affected by their self-confidence on their behavior. (Han, Sheu & Hsu (2010)

Figure 4: The Theory of Planned Behavior (TPB)



Source: Based on Azjen, 1991

2.1.1 Predicting behavior: Intentions and Perceived behavioral control

The central factor is the intention when individual must decide to a context for instance their capabilities to try and their adaptability to make effort toward the situation.



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Perceived behavioral control performs the ease or the challenge that individual has when make-up decision. First, TPB is different from the perceived locus of control of Rotter's (1966) which rarely changes during the occurs of situations forms of actions. Second, according to Atkinson (1964), the Perceived control behavior represents the behavior when succeed in a context.

According to TPB, both perceived behavioral control and behavioral intentional can lead to an achievement of a behavior. (Ajzen, 1991, 181 (211))

2.1.2 Predicting intentions: Attitudes, Subjective norms and Perceived behavioral control

The Theory of Planned behavior has three independent elements of intentions. The first element is Attitude which refers to the favorable or unfavorable assessment of the behavior. The second element is Subjective norm, which is linked to the social factor that influences their persons to perform their behavior. The third element is "Perceived behavioral control", which is relevant to the past experience to perform the behavior with ease or with difficulty.

Therefore, according to Ajzen (1991), when Attitudes and Subjective norm perform more favorably towards the behavior, perceived behavioral control is greater, individual seems to perform the behavior under consideration.

(Ajzen, 1991, 188 (211))

Regarding the theory of planned behavior (Ajzen, 1991), the topic of this master thesis will use three main factors of TPB to discover factors that contribute to Vietnamese's behaviors to choose or not choose green hotels to stay.

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- (1) Attitude is the first element of the TPB, which is constituted by behavioral beliefs. Behavioral beliefs are the connection of the behaviors of interest and the expected outcome. The final results of the survey will figure out if their previous knowledge on green hotels are linked to the expected outcome after their visit.
- (2) Subjective norms are linked to social pressure to their decision. Subjective norm is called also as “normative beliefs”, indicating the extent to which other people are important to them to make up their mind. Hence, Vietnamese customers’ decision on green hotels will be based on this theory. By several questions in the survey, author will find out if their respondents’ decision is affected by their social net workings.
- (3) Thirdly, perceived behavioral controls as well as “Control beliefs” focus on the ease or the difficulty of individuals to decide. Their decision will probably be linked to the presence or the absence of necessary resources. Thanks to the theory, Vietnamese tourists’ ease or difficult with any factors that were linked to their decision will be figured out.

In addition, behavioral controls and behavioral intention will result in an achievement of behavior. Author will find out Vietnamese tourists would like to try the concepts of green hotels regarding their knowledges on environmental issues. Also, the cooperation of attitude, subjective norms, and perceived behavioral control will finally lead to their choices under consideration; helping author learn of how different factors contribute to their decisions.

2.1.3. The Connection between the theory of planned behavior and the theory of image formation

According to Lee et al. (2010), image is structured through three phases: Cognitive Image, Affective Image and Overall Image. These are respectively linked to shape of **Beliefs and**



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Feelings. (Doyle & Fenwick, 1974; James, Durand, & Dreves, 1976). **Cognitive Image** is the *consumers' beliefs, knowledge and understanding about a product/service*, while **Affective Image** *concentrates on how consumers feel about the product/service*. Both of them contribute to the **Overall Image** that is *the creation of favorable behavioral intentions*.

Based on The Theory of Planned Behavior (Ajzen, 1991), three main elements that contribute to Intentions and Behaviors are

- Attitudes
- Subjective Norms
- Perceived Behavioral Controls

The definition of Attitudes stands for “consumers’ favorable or unfavorable evaluation of the person when they make option towards a context” (Renzi, 2008); whereas Subjective norms stands for “the perceived social pressure to perform or not to perform the behavior”. Both Attitudes and Subjective Norms lead to Intention of Consumers. Perceived behavioral control is defined as the “perceived ease or difficulty of performing the behavior”. Perceived behavioral control also contributes to Intention and Behaviors.

In this thesis, I study the Vietnamese tourists’ behaviors towards green hotels in Vietnam. According to the discussion above, Perceived behavioral control leads to Behaviors. Furthermore, this thesis is going to use the concept of Image Formation to test Vietnamese tourists’ behaviors towards green hotels. Therefore, this discussion will also contribute to the research framework, which is also illustrated later in the end of Literature Review.

2.2 Green consumption



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The second theory studied in this research is Green consumption. Joshi & Rahman (2015) defined **green consumption** as consumers' buying behaviors where consumers acknowledge of their purchasing behaviors' impacts on the environment such as using and disposing it and they start to use more green products or services.

Furthermore, Grunert (1995) research showed that about 40% of the environmental damage are originally from consumer households; therefore, to reduce the environmental impact caused by consumer households, consumers are nowadays more aware of their purchasing behaviors towards green products and tend to purchase green home products. Arvola et al. (2008), Ellen, Webb & Mohr (2006), Liu et al. (2012) and Vermeir & Verbeke (2006) showed that consumers are likely to behave more positively towards environmental protection.

As in other industries, in recent years, green consumption has been a new consideration in the hospitality industry (Rahman & Reynolds (2017)). According to Trip Advisor (2013), two thirds of travelers looked for environmental-friendly hotels to stay. However, the report from Trip Advisor pointed out that 64% of them have been unsure about whether hotels are eco-friendly.

Also, energy efficiency is the approach that every developed country has to achieve. The reasons stand for that are the negative consequences such as alarming global warming, land pollution, water issues, waste generation and air pollution. (Hassan et al., 2018). Therefore, every country has tackled the problem of energy consumption by finding more solution of energy consumption at the moment (Hassan et al, 2018, 7).

I continue with the analysis of the main dimensions of green behavior as studied by the literature.

2.2.1 Consumer behavior toward green products



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According to Schena et al (2015), people have got more awareness of environmental degradation and tend to purchase more green products. Consumers are not conscious of the green products through the info of producing factories but mostly through their brands that they have in mind.

Therefore, companies should invest in highlighting their green products' brands. Also, it is significant to avoid greenwashing in consumer's mindsets. Greenwashing is defined as the doubting behavior of consumers towards products which is advertised by environmental messages. The suggested solutions are financing for their certifications and environmentally friendly technologies and green packaging. (Schena et al, 2015, 45(54)).

2.2.2 Green consumer profile

According to Afonso & Goncalves (2018), there are many reasons standing for why consumers choose a green product. A MORI (Market and Opinion Research International) from 1989 stated that consumers choose their products referring to their environmental performance. (Afonso & Goncalves, 2018, 975(988))

In the other words, ecologically conscious consumers are the consumers who purchase the product that lead to the least environmental cause to the surroundings because ignoring using any of the harmful products mean they are contributing to our environmental preservation.

According to Milovanov (2015), researchers used several variables to recognize the profile of green consumers. From socio-demographic to other factors in the profile such as motivation caused by a cognitive stimulus. Additionally, other factors belong to green consumer profile including education, age group, preferences, are considered such important features to distinguish between consumers.



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The ECCB (*Ecologically-conscious Consumer Behavior*) scale developed by Roberts in 1996 analyze green consumers' profiles.

a. Socio-demographic characterization

Anderson & Cunningham (1972) wrote in their research paper that the group of ecologically conscious consumer belong to a socio-economic class with a high level of education with a higher socio-economic status above the average people class. Furthermore, as claimed by Banerjee and Mckeage (1994), the gender also matters in environmentally friendly consciousness between men and women. For instance, women are more aware of environmental issues than men; however, the consumption of green products are more in men than in women.

In terms of age range, young people tend to be more interested in green marketing campaigns.

In terms of income, Awad (2011) argued that income has a great effect on environmental behaviors since green products are more costly than the basic type of products. However, other authors convinced that the result was wrong.

In terms of literacy, the higher education with higher literacy capabilities own a higher level of environmentally conscious behaviors. (Afonso & Golcaves, 2018, 975-976 (988))

b. Profile of Green Consumer in the hospitality industry

In a hospitality industry, a green consumer defined by Dolinicar & Matus (2008) as a green tourist or an ecotourist. To summarize, ecotourists are the group of people who behave in an environmental friendly way during their holidays in the context of nature-based tourism; whereas green tourists are the group of people in general behave in a tourism context.

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Dolnicar et al (2008) told the differences between normal travelers and green travelers. By identifying 14 characteristics of environmental friendly travelers, they grouped those type of travelers into 4 different groups such as socio-demographic factors, behavioral characteristics, travel motivations and other characteristics. Finally, it was found out that high educated and high-income levels travelers appreciate green hotels over other ones. Besides, gender was not a distinguishing feature.

2.2.3 Pro-environmental behavior

The study of green consumption is the form of the study of pro-environmental behavior. According to Steg & Vlek (2008), pro-environmental behavior is the kind of ecologically conscious behavior that do not harm that much the surroundings of environment. (Steg & Vlek, 2008, 309 (317)). Pro-environmental behavior makes clearer the factors such as motivational and contextual factors in green consumer profile, which affect the decision of green consumers to choose green hotels.

It is significant to understand a variety of factors that influence on environmental behavior. As stated by Steg & Vlek (2009), motivational and contextual factors are the ones which influence on consumers' environmental behavior. Motivational factors include weighing costs and benefits, moral and normative concerns, affect, an integrative perspective on environmental motivation. Contextual factors are the facilitators to environmental behaviors. (Steg & Vlek, 2009, 311-312(317))

When comes to motivational factors, it is important to go from the first factor to other factors because those are linked respectively to each other.

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- Weighing costs and benefits: This factor does mean about the purchase option of the consumers between the costs and the benefits. Nowadays, more and more socio-economic group of consumers chose to purchase products with higher costs but bringing more environmental benefits against products with lowest costs. Some of the environmental types of behaviors relevant to the Theory of Planned Behavior are travel mode choice, household recycling, water use, meat consumption and other pro-environmental behaviors. (Steg & Vlek, 2009, 311(317))
- Moral and normative concerns: Firstly, according to the research papers, individuals who are involved in self-transcendent, prosocial, altruistic or biosphere behaviors are more likely to have a positive perspective on pro-environmental behavior. Secondly, when comes to the role of environmental behaviors, the measures of the behaviors are based on New Environmental Paradigm scale. Even though the involvement is not strong, the behaviors towards environmental consciousness is viewed as more pro-environmental. Thirdly, when comes to focus on moral obligations to act pro-environmentally, the Theory of Planned Behaviors explains it better than other models since it consists of factors such as non-environmental motivations and perceived behavioral control. Fourthly, the influence of social norms on behavior is explained by the theory of normative conduct which divide into two kinds of norms such as injunctive norms and descriptive norms. (Steg & Vlek, 2009, 311(317))
- Affect: The role of effect on pro-environmental behavior is mostly explained in some cases of usage of car. Theories point out that car use is related effectively to affective factors in order to fulfill three functions consisting of instrumental, symbolic and affective. (Steg & Vlek, 2009, 311(317))



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When comes to contextual factors, many contextual factors appear to be a facilitator to environmental behavior and have a positive impact on individual motivations. Contextual factors are defined in several ways. First, they affect behavior. Second, contextual factors and behaviors might be balanced between motivational factors. Third, contextual factors might have impacts on personal factors. Fourth, contextual factors indicated which type of motivations that have effect on behaviors. (Steg & Vlek, 2009, 312(317))

In the study Green Hotel Adoption (2018), Balaji & Jiang (2018) investigated in finding out guest responses to green hotels based on either their identification (the personal route) or trust (the social route). This is the study of Green Hotel Attributes (GHA), which define the decision of potential guests towards green hotels.

According to Rahman et al. (2015) and Goh & Balaji (2016), green hotels do not always perform as effectively as customers' needs. Hence, there are still a mix of positive and negative responses.

Identification explain the commitment of a potential guest to green hotels. In the context, the guest will feel themselves as a part of the group (e.g.: gender, ethnicity and relation) that compromise to the value of green hotels; than the one which only meet self-definition needs. (Tajfel, 1974) Some examples to be named. A potential guest has more tendencies to protect the environment; is more likely to identify themselves to green hotels' environmental-friendly values. By staying in ecological hotels, they are defined themselves as a responsible person. Bhattacharya and Sen (2003) defined this process of a customer related to a company as a consumer-company identification.

Distinguished from concept of Identification, Trust towards green hotels is explained as a guest's willingness to commit to green hotels' values that are based on their credibility and their brand



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on environmental performance. (Chen, 2010). Chen also found that green brand is enhanced amongst their consumers through an organization's environmental performance.

2.3 Green hospitality

The third part of this literature review is the research on **Green hospitality**. The analysis started from the definition of green hotels by Kim et al (2012), followed by the analysis of differentiation between two types of customers when choosing hotels who are businesses and leisure travelers by Millar et al (2012). Also, Millar et al (2012) differentiated three main aspects which impact on their decisions to choose hotels.

2.3.1 What are green hotels?

Sloan, Legrand & Simons-Kaufmann (2014) agreed that sustainability and ecological concepts have been widely becoming concerned in hospitality industry. Gustin & Weaver (2016) both concluded after their researches that green marketing, environmental responsible marketing and socially responsible marketing have been concept developed in the tourism industry generally and in hotel industry in particular.

Green Hotels Association (2015) and Kim et al (2012) defined green hotels in their own ways.

According to Green Hotels Association (2010), green hotels are given the meaning of "those are conducting their businesses by minimizing the usage of natural resources and saving the natural resources through efficiency".

According to Kim et al (2012), green hotels (or environmentally friendly hotels) mean those lodgings that are directed to such programs to save water, energy and reduce solid waste. The term "environmentally friendly hotels), if are broken into word, means "green, environmentally



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sensitive and eco-logically sound.” Customers when using green hotels as their lodgings expect to use environmentally-friendly products/services. (Kim et al, 2012, 198 (215))

Mensah (2004) reported on the percentage of hotel guests’ willing to pay attention to environmental protection. As a result, 90% of their guests prefer to stay in an accommodation where environmental programs are applied and hotel staffs care about the environment. (International hotels Environmental Initiative Accor)

Trip Advisor (2007) published on the number of hotel guests whether they want to commit to environmental programs. Unsurprisingly, two thirds of stayers said that environmental initiatives make a difference for both hotels and guests; while 78% agreed to reduce using other additional hotel services such as renewing the sheets and towels.

However, a study by Element Hotels in 2007 gave an opposite result since 75% of guest respondents refused to give up daily hotel services. Furthermore, guest admitted not paying attention to environmental programs due to the fact that they are not responsible directly to the cleanliness and utilities.

According to the results that are reported by different sources, hotel guests gave several results on their commitment to the initiatives. Still, many hotels took actions on the greenness of their hotels without concerning the conscious of hotel guests; despite of the customers satisfactions’ goals. (Dief & Font (2010); Manaktola & Jauhari (2007))

Brady & Robertson (1999) and Cronin, Brady, Brand, Hightower & Shemwell (1997) explained the possibility of perceived value’s positive impact on customer intention to purchase and commit to the product brand. Chang & Chen (20) defined perceived value in a sustainable



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context as “green perceived value is when customers are more likely to purchase the product if they perceive higher value of a product or services”.

2.3.2 Green hotels’ differences in definition between leisure travelers and businesses

Based on the research paper “Importance of Green Hotel Attributes to Business and Leisure Travelers”, Millar et al (2012) have analyzed the perception on environmental friendly hotels in the mindset between leisure travelers and businesses. According to Deloitte’s questionnaires surveys, the amount of business traveler who prefer to stay in environmental friendly hotels is 34% and around 38% tend to be interested in green lodging facilities. Meanwhile, leisure travelers’ number accounts for 66% that take into practice their hotel’s conservation efforts. By comparison with leisure travelers, business travelers search green products/services for their comfortable stays. In mean time, leisure travelers choose hotels which own sustainable programs in their operations that fulfill their own personal attitudes and lifestyles. (Millar et al, 2012, 396 (413))

According to the research paper, three main aspects influence on business travelers and leisure travelers on their decision to choose green hotels or not are Attributes, Attitudes, Attitudes, Attitudes with the environment and Involvement.

a. Attributes

Based on the results of the surveys, business travelers could have more chances to choose amongst different hotels than leisure travelers. According to the research paper, business travelers concern more about how much they pay for a room in the hotel while leisure travelers are worried about their securities and their safeties. When needed to make a comparison between economy, mispriced and luxury hotels, these types of attributes such as clean room, convenient

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location, prompt and comfortable services, safe and secure areas and good services are highly on the top of the attributes to the hotel points.

However, in the other studies which is conducted by Watkins and Kasim, despite of the fact that regular travelers are conscious about sustainability in the hotels, they tend to refuse to pay with a higher as premium price for their stay. In fact, they consider themselves as green consumers but they behave like environmentally unconscious travelers. Their excuses were that green hotel practices are likely to not be included in their concerns. (Millar et al, 2012, 398 (413))

b. Attitudes

Attitude has been discussed as the hottest topic to research in in field of social sciences. There are three types of attitudes which include affective, cognitive and behavioral elements. Affective behaviors represent the feelings of each individual while cognitive behaviors are the knowledges of each individual on the object. As the result, behavioral component are the actions from the feelings and the knowledge. In the hotel industry, whenever a hotel consumer is encouraged to stay in a room with environmental friendly styles, they would stay even it did not represent their styles of behaviors. (Millar et al, 2012, 398 (413))

c. Attitude and the Environment

Regarding the results of the surveys delivered to park visitors, the survey's response has shown that the demographic components are not the matter when considering tourist' behaviors towards environment. The trip behaviors are the main actor that influence on tourists' actions during the whole trip. The clearest examples are the behaviors towards the preservation and the conversation on their environment during the trip.



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Attitudes when go with other factors such as hotelier's attitudes, ecotourists' and hotel guests' towards the environment could be enhanced to reflect decisions of their consumers on deciding green hotels. (Millar et al, 2012, 399 (413))

d. Involvement

Involvement is the terms that define the connection of the individual with the object based on his need of the objects or his knowledges on it. In the hotel industry as an example, a guest's involvement with the product will depend on the guest's perception on green hotel. If the guest felt the room related to their personal goals or beliefs, their involvement in the green concept would be higher. (Millar et al, 2012, 399(413))

2.3.3 Programs included in green hotels

In the research paper "The environmentally friendly programs in hotels and intentions to stay: An online approach", Kim et al (2012) analyzed the results collected from 63 travelers in online communities from their online website. Their approach is to find out if customers' decisions are influenced by green programs in hotels. The results pointed out that customers choose their hotels to stay based on the below programs such as (Kim et al, 2012, 195 (215)):

- (1) Solid waste and water programs in guestrooms
- (2) Energy programs
- (3) Solid waste and water programs in housekeeping
- (4) Biodiversity programs

In the same research, Kim et al (2012) gave some examples of hotels that have based green programs in their internal and external operations. In Macao, China, 81% of hotels have been



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applying sustainable programs into their operations in order to limit the consumption of natural resources, especially energy. Regarding natural resources as water, 77.8% of hotels were accounted for updating their green operations to reduce water consumption. In the meantime, 77.8% of hotels have been updating their programs to reduce solid consumption. (Kim et al, 2012, 199 (204))

Based on Berean et al (2014) 's research paper, in Florida, the hotel industries that have been certified of using lodging facilities following strict guidelines on environmental management consisting of communication and education, the reduction of waste, the water conservation and the energy efficiency. Other hotel which is considered as green practice is Marriott Hotel in where customers are encouraged to purchase carbon offsets at a cheap price as 1\$ per day. This encouragement has been recommended to lower the consumption of annual amount of water and other natural resources. (Berezan et al, 2014, 3(19))

Three key programs that have been operated inside those hotels include:

a. Energy program

According to Accor (2016), the use of energy has been doubled in the recent years, leading to the usage of 1\$billions of energies in the hotels per year. A program was suggested by a United Nations employee that a hotel could put into practice their operations such as temperature control and Energy star rated devices. In fact, according to the research paper, the hospitality industry would've decreased their energy usage by 20 % while still having guest' satisfactions using their services programs.

b. Solid waste program



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Regarding the report provided by The Organization for Economic Co-operations and Development countries, 5.3 kg of waste was produced per person. As a result, hospitality industry has paid double for their product packaging and their waste disposal. It was reported in Accor 2016 that that industry lost their capital on just disposing their used packaging and their wastes. One solution was pointed out. Such products and packages can be all recycled and reused in order to limit the consumption of waste in operations. (Kim et al, 2012, 200 (214))

c. Biodiversity program

The situation of our surrounding environment is highly ringing the alarm. Our biodiversity has been destroyed. Our animals and our nature including plants, fish, mammals and also birds are extinct. According to Accor 2016's advices, hotels should take into more attention in the green areas and furthermore, any fundings to environmental groups could be a nicely environmental behavior. (Kim et al, 2012, 200 (214))

d. Water program

One of other programs that is highly mentioned is the management of water program. Most of people access to fresh water from the tap; but dispose it. These regular activities have led to the significant amount of water disposal and then destroy water natural resources. Therefore, it is better to consume needed amount of water for products and services within several hotels. For example, hotel guests are able to control their consumption of water that are taken from a faucet, a showerhead or a toilet. Moreover, their guests are highly suggested to reuse their towels and their linens more than just one day. (Kim et al, 2012, 200 (214))

e. Suggestion for green buildings



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Several hotels in developed countries nowadays have applied the utilization of the green buildings into their operations. In fact, in the research paper “The compelling hard case for green hotel development”, it was stated that green buildings costs less than conventional buildings. As a consequence, a lower consumption of natural resources such as energy, waste and water; along also with lower costs of great emissions and lower costs of operation and maintenance; however, it is more healthily advantageous for our world. (Butler, 2008, 238 (244)).

Additionally, other bonuses that green building could bring to the employers and their employees who are working every day in the office that it helps to make their health better such as the reduction of illness symptoms, the reduction of the absenteeism and the growth of their productivity. Plus, sitting next to the green glasses have led to the improvement of thermal comfort and ventilation. (Butler, 2008, 238 (244)).

2.3.3 Green hospitality in Asia: the context analysis of green hotels in Vietnam

According to Chan & Lam (2001), a first Regional Chapter – the Asia Pacific Hotels Environment Initiative has been constituted by 16 hotels groups in the Asia Pacific group.

In Malaysia, it is recommended from the government and green bodies that more incentives and high skills should be provided to influence sustainable hotels in Kuala Lumpur and the state of Selangor in terms of support to infrastructure situation.

In Korea, it is viewed significantly between general managers that hotel should be run in a waste-management and recycling despite of the fact that it is a profitably long-run cost. Hotels' operations need to be ecologically well-functioned not only in the surface but also in a deeper side.



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In Hong Kong, only 4 multinational group hotels or top-rated large hotels as the Island Shangri-La Hong Kong, Knowloon Shanggri-La, Hotel Nikko HongKong and the Inter-Continental Grand Standford Hong Kong are regarded as green hotels. (Antonio, 2001). Such hotels adopted Environmental Management System that meets ISO 14001 standards between the relations amongst guests, local community and suppliers. (Meade & Del Monaco, 1999). ISO 14001 is the tool to improve relationships with their consumers, communitors and environmental-oriented investors. (Roy et al. (2001) & Stenzel (2000)) Roy et al. (2001) also concluded that even though several multinational hotels in Hong Kong has been considered as environmental-friendly hotels, still some amongst these hotels are regarded as not committing to environmental initiatives. Such reasons stand for are listed as (1) lack of sense of urgency; (2) the lack of certainty of EMS standards; (3) lack of qualified verifiers/consultants; (4) conflicting guidance and (5) inconsistent support.

2.3.4 Green hotels in Vietnam

Recent years has witnessed the development of economics and tourism sector, increasing the number of domestic and international tourists to Vietnam. However, the significant increase lead to the devastation of environmental surroundings. Some of the negative consequences are named as plastic bottles, bags, packaging around the destinations. According to the Food and Agriculture Organization of the United Nations (FAQ), Vietnam was ranked as 129th out of 136th countries regarding the sustainability of environmental aspects. Vietnam accounted for having giving out 1.8 million tons of untreated plastic waste last year; last but not least, being positioned as 4th place out of the countries which dumbled into the sea huge amount of waste. (Vietnam tourism government, 2018)

Estimated number of tourists coming to Vietnam have developed from 250,000 in 1990 to 2.5 million in 2001. Significantly, it has been grown by around 30-40% by 2010. At the moment,



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many hotels and resorts increased their room by 63,500 rooms in 1999. In consequence, the consumption has increased including energy consumption, water consumption and consumption of other natural resources.

- Energy consumption: The consumption of electricity's in the resorts is considered as the lowest regarding 2 stars to 4-star hotels. From 3 stars to 4-star, electricity consumption is the same. Most of electricity consumption are to air conditioning, lighting, appliances and water pumping.
- Water consumption: The amount of water is consumed in the hotels and the resorts in Vietnam are consumed to those activities including gardening, the conservation activities for green areas.
- Waste matters: The treatment of waste water is not common in the hotel in Vietnam even though it is aware of the extensive amount of water consumed due to the huge number of tourists visiting Vietnam and staying in the hotels. Used water consumption is hence treated in the municipal drainage system and the natural surroundings such as rivers and sea. As a result, many problems happen such as bad odor and pollution. (Trung & Kumar, 2003, 110-113(116))

2.4 Research framework: The Theory of Planned Behavior applied into hospitality industry

2.4.1 TPB effects on tourists' behaviors.

The aim of this thesis is to find out the drivers to stimulate Vietnamese tourists to choose green hotels in Vietnam. Literature review starts by The Theory of Planned Behavior by explaining each element belonging to the theory. This part describes mainly how consumers express their behaviors, the drivers to boost them and the ease and difficulties for them to perform. The second theory is green consumption. Starting by how people get awareness in general of green products,



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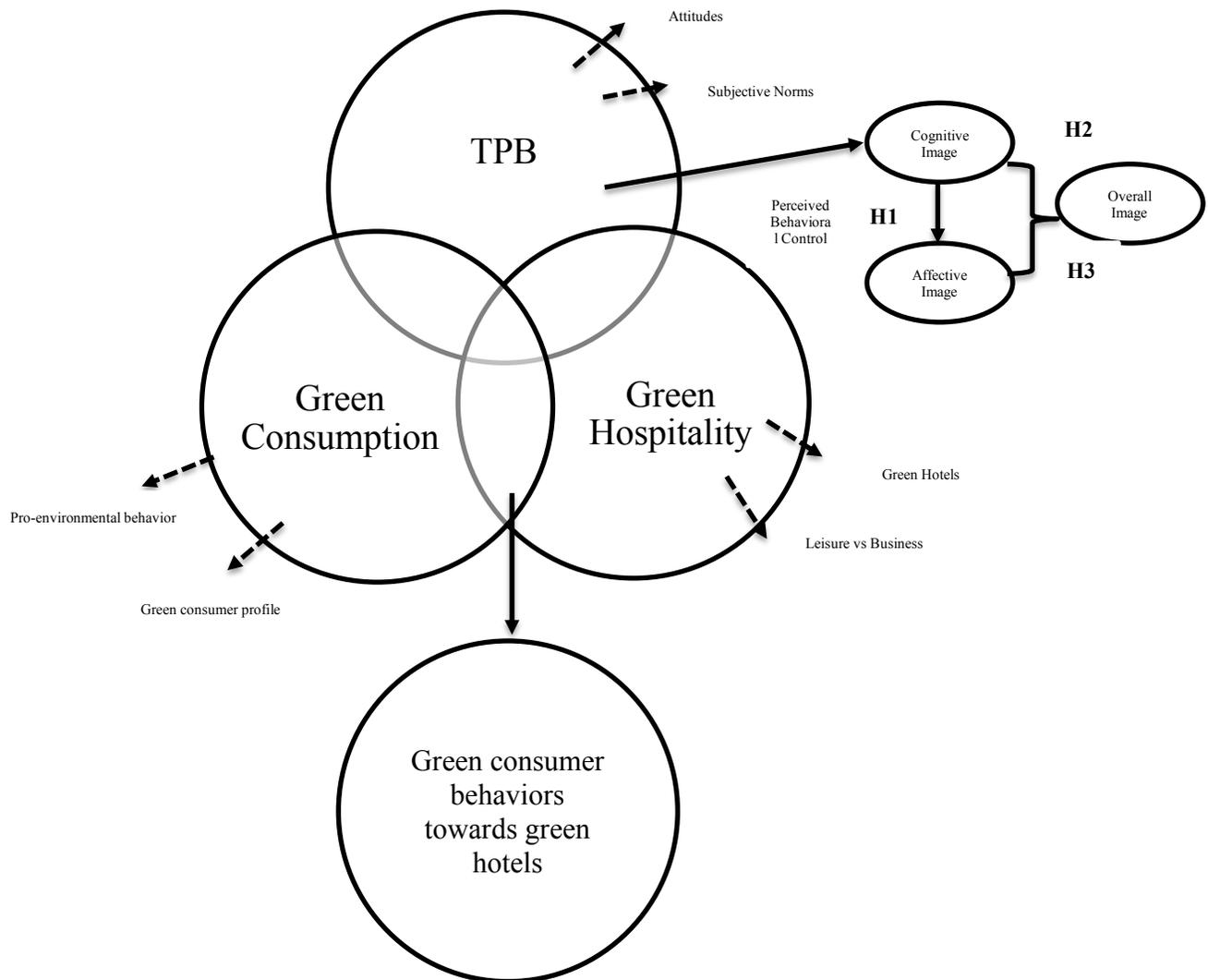
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green consumer profile is followed by with a description of socio demographic such as education, gender, age range, income, literacy. The part of green consumption is added by more explanation of green consumer in the hospitality industry with green tourists and ecotourists. Pro-environmental behavior is the next theory belonging to the theory of Green Consumption. This theory is linked to TPB, which explains about motivational factor (weighing costs and more benefits, Moral and Normative Concerns) and contextual factor (facilitators to environmental behaviors). The advantage of this part is to implement to the green consumer profile besides socio-demographic factors. The third part is green hospitality's analysis. Particularly, the part mentions the difference of behaviors between leisure travelers and businesses towards green hospitality. Literature review ends by programs included in green hotels and more details about green hospitality situation in Vietnam.

Three theories are connected to each other to explain the behaviors of green customers towards green hotels. Especially, the theory of Pro-environmental Behavior supports the theory of TPB regarding explanation of different factors influencing on their behaviors. Additionally, the difference between leisure travelers and businesses also support Pro-environmental behavior.

Figure 5: Research Framework: Conceptual model of analysis



I also include the 3 hypotheses:

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- (1) H1: CI positively impacts a green hotel's AI.
- (2) H2: CI positively impacts a green hotel's overall image.
- (3) H3: AI positively impacts a green hotel's overall image.

Furthermore, Han, Sheu & Hsu (2011) tested the connection between The Theory of Planned Behavior and the customers' intention to stay at a green hotel. In order to test this applicability of TPB towards the customers' intention, they investigated EFA (Environmentally friendly activities) impact antecedents of intention and the intention as additional analysis.

According to Laroche et al. (2001) and Shabecoff (1993), people who are engaged in such program as the programme EFA are likely to behave "greener". They purchase more ecologically and behave more ecologically fashion in their life styles such as recycling, Consumers who do not take part in EFA program tend to have lower level of environmentally friendly behaviors. The reasons standing for this were that frequent EFA customers tend to think that our ecological situation has had problems and we need to solve it while infrequent EFA customers perceive that our environmental issues can be resolved themselves. Therefore, it is understood that the frequency of participating in EFA programme has affected on the behavior of customers while choosing hotels to stay. Laroche et al. (2001) and Shabecoff (1993) stated that with the same level of attitude, subjective norm and perceived behavioral control, frequent EFA customers have a better behavior than infrequent EFA customers.

In this research, I study Vietnamese tourist's behaviors towards green hotels in Vietnam. As seen in the research framework, their behaviors are a combination of the theory of Image Formation, other Literature Reviews and the Result Findings will lately be discussed in the Research Finding part of the thesis.



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3 QUANTITATIVE RESEARCH METHOD

The goal of this thesis is to figure out the drivers to encourage Vietnamese tourists to choose green hotels to stay in Vietnam. In other words, it means to discover their behaviors, which stimulate to their decisions to choose eco accommodation. The main research is followed by two sub questions, which are their knowledge on environmental-friendly hotels, and their awareness of programs included in green hotels in Vietnam.

3.1.1. Research process

Quantitative research process starts from planning of the research with theories, research question and model analysis ; to data collection and data analysis (Categorical Data or Numerical Data) when selecting samples and accessing to data,; next to analyzing the data with quantitative methods (Exploratory Factor Analysis and Linear Regression); followed by testing the reliability measurement and finally to report the data through tables, matrices, formulas or diagrams.

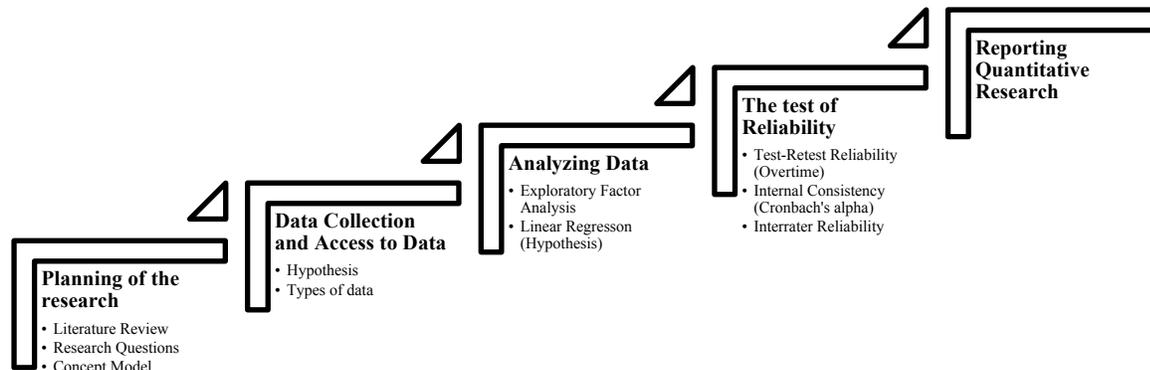


Figure 6: Quantitative Research Process

3.1 Planning of the quantitative research

3.1.1 Literature Review and Research Questions

The main research question of this thesis is “What are the drivers of Vietnamese tourists when choosing green hotels to stay?”

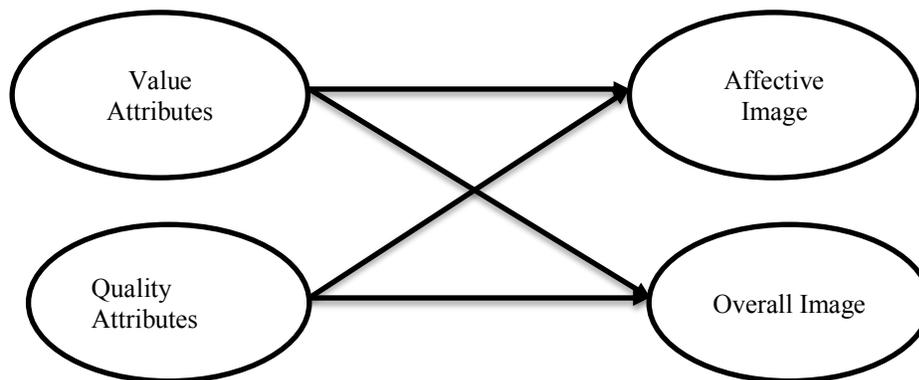
This question is supported by two sub-questions:

RQ.1: What are tourists’ beliefs and knowledges towards green hotels?

RQ.2: What are tourists’ feelings towards green hotels?

In this master thesis, I build a research framework based on the model of image formation (Lee. et al., 2010).

Figure 7: The Model of Image Formation



Source: Based on Lee et al. (2010)) (Value Attribute + Quality Attribute = Cognitive Image)

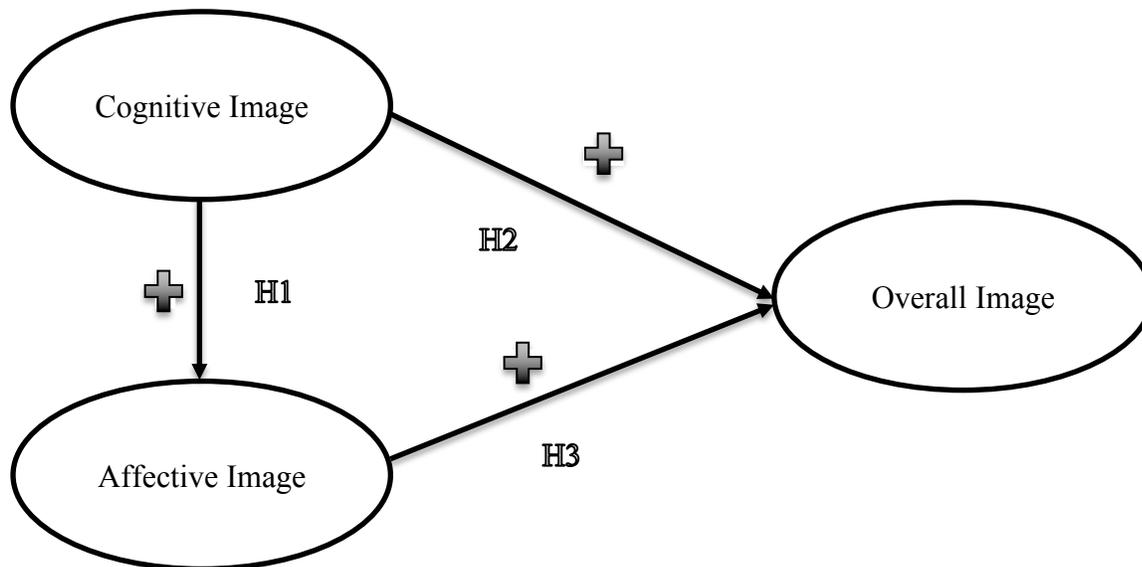
According to Lee, J. et al (2010), Cognitive Image (CI) is the antecedent of Affective Image (AI), which are constituted by a set of knowledges and beliefs. And both contribute to overall image Garnet (1993) & Stern & rakover (1993)).

According to Table 1 (Lee, J. et al (2010)), researchers started to test the dimensions associated with Cognitive Image. EFA is used in the research. Researchers concluded in the Table 1 that two factors (value attributes and quality attributes) belong to the cognitive image.

Figure 5 is based on the Table 1 in the research of Lee, J. et al (2010). Value Attributes and Quality Attributes belong to Cognitive Image (CI); hence Value Attribute and Quality Attribute both has impact on Affective Image and Overall Image. Cognitive Image (CI) and Affective Image (AI) contribute to Overall Image.

Based on Lee et al., 2010, and the model of image formation, I came up with her own model of image formation.

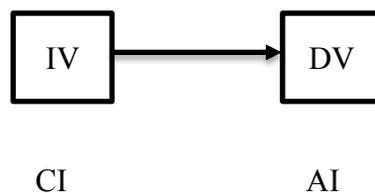
Figure 8: The Model of Image Formation (According to thesis)



Source: based on Lee. Et al, 2010

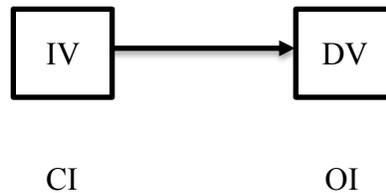
Based on Lee. et al (2010), I adopt the theory of the model of Image Formation. As I explained before, three hypotheses emerge according to the two-sub research-questions:

- a. Cognitive Image has positive impact on Affective Image.





b. Cognitive Image has positive impacts on Overall Image.



c. Affective Image has positive Impact on Overall Image.



3.2 Survey design, data Collection and Data Analysis

3.2.1 Survey Research Design

Survey questionnaire used in this master thesis are 10 questions below:

1. What is your gender?

Select one answer

- Male
- Female

2. What is your age?

Select one answer

- 20 – 29 years old
- 30 – 39 years old
- 40 – 49 years old



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3. What is your education level?

Select one answer

- Preliminary school certification
- High school certification
- Undergraduate Degree
- Graduate Degree
- Post Graduate Degree
- Doctoral Degree

4. What is your income level?

Select one answer

- 1 million VND - 10 million VND
- 11 million VND - 20 million VND
- 21 million VND - 30 million VND
- More than 30 million VND

5. How often do you go to a hotel during a year?

- Never
- once a year
- 2-4 times a year
- 5-7 times a year
- every month

6. What is the most important goal of your travel

- Business
- Vacation
- Visiting friends
- Temporary housing
- other: specify



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7. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Strongly Disagree (=1), Disagree (=2), Slightly Disagree (3) Neither Agree/Nor Disagree (=4), Slightly agree (=5) Agree (=6), Strongly Agree (=7)

- A green hotel offers good value for money
1 2 3 4 5 6 7
- The price charged by green hotels is reasonable
1 2 3 4 5 6 7
- A green hotel offers good quality/benefits
1 2 3 4 5 6 7

8. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Strongly Disagree (=1), Disagree (=2), Slightly Disagree (3) Neither Agree/Nor Disagree (=4), Slightly agree (=5) Agree (=6), Strongly Agree (=7)

- A green hotel has hygienic and attractive dining areas
1 2 3 4 5 6 7
- Restaurant(s) in a green hotel offer fresh and healthful food
1 2 3 4 5 6 7
- A green hotel offers healthy amenities and products
1 2 3 4 5 6 7
- A green hotel offers healthy “green” guest bedrooms
1 2 3 4 5 6 7
- Staying at a green hotel is safe
1 2 3 4 5 6 7



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- Services at a green hotel meet my needs and expectations
1 2 3 4 5 6 7
- The facilities and atmosphere of a green hotel are preferable
1 2 3 4 5 6 7
- Overall, the rooms and accommodations at a green hotel are clean and comfortable
1 2 3 4 5 6 7

9. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Strongly Disagree (=1), Disagree (=2), Slightly Disagree (3) Neither Agree/Nor Disagree (=4), Slightly agree (=5) Agree (=6), Strongly Agree (=7)

Staying at a green hotel will be

- Arousing
1 2 3 4 5 6 7
- Pleasant
1 2 3 4 5 6 7
- Exciting
1 2 3 4 5 6 7
- Relaxing
1 2 3 4 5 6 7

10. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Very negative (=1), negative (=2), Slightly negative (3) Neither negative/Nor positive (=4), Slightly positive (=5) positive (=6), Very positive (=7)

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- Overall image of staying in green hotels is

1	2	3	4	5	6	7
---	---	---	---	---	---	---

- Overall image I have regarding green hotels is

1	2	3	4	5	6	7
---	---	---	---	---	---	---

- Overall, I consider that green hotels have a favorable image such that I would consider staying there

1	2	3	4	5	6	7
---	---	---	---	---	---	---

I use a questionnaire because it supports me to gather data from Vietnamese tourists

The survey questionnaire tends to be used for descriptive or explanatory research. Descriptive research includes those using attitude and opinion, which describes the different features of phenomena. Explanatory research, in a contrast, includes questionnaires on relationship between variables, especially cause-and-effect relationships.

Also, the design of questionnaires will depend on how it is administered and the amount of contact the survey has. There are two main types of questionnaires, which are Self-administered questionnaires and Interviewer-administered questionnaires. Self-administered questionnaires include internet and intranet-mediated questionnaires, postal questionnaires and delivery and collection questionnaires. Interviewer-administered questionnaires include telephone questionnaires and structured questionnaires. (Saunders et al, 2009)

The survey was delivered to Vietnamese guests who were staying in Hotel Vietnam, which is defined as one of the green hotels in Vietnam. 10 questions were delivered to Vietnamese guests on papers. The questionnaires are based on the main research question, which is “What are the drivers to stimulate Vietnamese tourists to choose green hotels to stay?”.

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Those questionnaires include both descriptive and explanatory research. These questions ask tourists about their opinions including cognitive, affective and overall image regarding green hotels, which means descriptive research. Plus, 3 hypotheses are tested to verify the cause-and-effect relationship between variables, which means that this is an explanatory research. Self-administered questionnaires, which mostly focus on delivery questionnaires.

A number of 10 question survey were delivered to Vietnamese guests on February 2019 and were collected after 2 weeks. There were 79 Vietnamese people answering the surveys. 10 questions are extracted from the research of Lee, Hsu, Han and Kim (2010).

Part 1 are first 4 questions on socio-economic background of the guests (Age, Gender, Education and Income level). Part 2 are two next questions aiming at researching on their activities to visit green hotels (Their Frequencies and their Goals). Part 3 include Question 7 and Question 8, covering the cognitive image of guests. Part 4 include Question 9 covering their affective image towards green hotels. Part 5 include Question 10 covering their overall image towards green hotels. Respondents are expected to have a high level of education and have some prior knowledges on green hospitality in order to have a qualified survey's results.

The questions are multiple questions and contain also these following answers, following a likert scale: Strongly Disagree (=1), Disagree (=2), Neither Agree/Nor Disagree (=3), Agree (=4), Strongly Agree (=5).

3.2.2 Data collection

Quantitative data are divided into two groups: Categorical data (with sub divided group of data) and numerical data.



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Categorical data are the group of data are valued by being grouped into categories regarding the characteristics of the data or by describing the variable. (Brown and Saunders, 2008)

Categorical data can be sub-categorized into descriptive (nominal) and ranked group of data.

Descriptive data (nominal data) are the data that are impossible to being grouped numerically or by being ranked. For instance, hatchback, saloon and estate are those types of car production.

Those types of data are regarded descriptive; however, still being established into categories to see if the cases are spread. Ranked data are more accurate than descriptive data as the relative position within the data set. Rating questions are collected as how a respondent agrees or disagrees, how strongly his/her opinion is.

Numerical data, in other meaning, quantifiable data, are those data that are measure numerically as quantities, which means that those data are more precise than categorical data. It is divided into 2 sub-divided groups of data, which are interval data and ratio data. Interval data can state the difference between 2 data value but interval data can state the relative difference. Ratio data can say the difference of two relative difference.

Continuous data and discrete data are also different. Continuous data are data that are valued and are measured accurately such as length of service or delivery distance. Discrete data is the other way, is the data that is measure precisely and is presented by a finite number of values such as the number of mobile telephones manufactured or customers services.

The differences of quantitative data are indispensable to conduct questionnaires, collect answers and analyze data.

The survey includes 10 questions. The six first questions represent the background of Vietnamese tourists. Question 1 stands for tourist gender while question 6 stands for the goal of



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their travel. Both questions use descriptive (nominal data) because these data are unordered and categorical. Question 2 asks tourists about their age while question 3 asks the about their education level, followed by question 5 stands for their frequency to travel during a year. These 3 questions used ordinal data because these are ordered and categorical. For instance, tourists' ages range from 20 to 49 years old and their education level ranked from preliminary school to doctoral degree. Question 4 wants to know about tourists' income level. This question used continuous data, in particularly ratio data because it's ranked from the lowest unit (1 million) to the highest unit (30 million). From question 7 to question 10, tourists are asked to rank their opinions from Strongly disagree to Strongly agree and from Very negative to Very positive to verify their cognitive, affective and overall image towards green hotels. These questions used ordinal data since these data are ordered and non-quantitative data.

In this research data is collected in Hotel Vietnam. I cannot include the name of the hotel due to non-disclosure agreement. In order to refer to the hotel I generate a fictitious name: Hotel Vietnam.

3.2.2.1 Green hotel profile: Hotel Vietnam

Hotel Vietnam (fictitious name) is a beachfront hotel, which is located in one of the most tourist cities in Vietnam. It is located between the bay and the street, which is 30 km far from the city center. They have over 100 guestrooms, which fantastic views over the beach and other city's natural attractions. Hotel Vietnam offers visitors variety types of rooms, ranging from normal to premium options. Their rooms are located in tropical garden and are equipped with eco-friendly utilities.

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At hotel Vietnam, guests are offered a selection of dining choices including both Vietnamese and international cuisines. Dishes are cooked and made from fresh local ingredients, that are bought from the local market and from the international suppliers.

Hotel Vietnam offers guests a variety of activities such as spa and therapies, cooking classes, morning market tour and beach activities.

As the hotel is located around beach area, they have integrated sustainability programs into their operations. Their strategies aim to reduce waste and chemicals within their operations; for instance, more garbage around the hotel area, waste food in the kitchen sold to the farmers and using eco-papers.

3.3 Data analysis: Exploratory Factor Analysis and Linear Regression

I introduced the quantitative methods of Exploratory Factor Analysis and Linear Regression in the part of Research Background. My thesis's research methods and hypotheses are based on Leet et al. (2010)'s research. I used the quantitative method of Exploratory Factor Analysis to check the dimensions between *Cognitive Image*, *Affective Image* and *Overall Image*. Linear regression is used to test the correlation between three variables in three different hypotheses.

In the study, I used Exploratory Factory Analysis to check the dimensions associated with Cognitive Image, Affective Image and Overall Image. I used Lee et al.'s research method to measure CI, AI and OI.

I measure Cognitive Image from question 7 (Value Attribute) to question 8 (Quality Attribute). In the research of Lee et al. (2010), cognitive image is proved to include value attribute and quality attribute according to their research model.



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I measure Affective Image with question 8 as it asks tourists about their feelings towards green hotels. The question asks them how they feel about staying in green hotels with 4 main feeling adjectives “Arousing”, “Pleasant”, “Exciting” and “Relaxing”.

I measure Overall Image with the last question 10, which asks tourists about their overall image towards green hotels.

Also based on Lee et al.’s research, I applied the method of linear regression to measure three hypothesis with the three main variables Cognitive Image, Affective Image and Overall Image.

The tests of Exploratory Factor Analysis and Linear Regression are applied by the statistical program SPSS and are in detailed shown in the part of Research Findings with illustration of tables and figures; e.g: Scatter Plot and Histogram.

3.4 The test of Reliability Measurement

Reliability is a consistency of measurement (BC Campus) According to Psychologists, there are three type of consistency, which include overtime (test-retest reliability), across items (internal consistency) and across different researchers (inter-rater reliability).

Firstly, Test-Retest Reliability (Overtime) is used by psychologists when a construct is assumed to be consistent across time. Secondly, Internal Consistency is the consistency of respondents across the items on a multiple-item measurement. The most common of Internal Consistency method is Cronbach’s alpha. Thirdly, Interrater Reliability refers to the extent of different observers are consistent in their opinions or their judgements.



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In this thesis, I will the test of Reliability to measure the reliability of Exploratory Factor Analysis's results. More particularly, Internal Consistency with Cronbach's alpha is used as there are 79 people, who answers to multiple items on every construct Cognitive Image, Affective Image and Overall Image.

3.5 Reporting quantitative research

Reporting quantitative research is represented through sample and data collection. Performance through samples consist of population specification, sampling frame and size. Performance through data collection include choice of data collection, process, pretesting and response rate.

Furthermore, reporting the results are also performed under description or analysis. Description include graphics (bar, histogram, pie charts, line and area, scatter plot), frequency tables and descriptive statistics (N, Mean, Standard deviation, Above statistics for non-transformed variables and correlation matrix). Reporting through analysis results include testing hypotheses, analysis methods (model fit statistics, test statistics), validation and generalizability.

The report of this thesis's quantitative research is demonstrated in the part of Research Findings with detailed analysis and furthermore, in the part of Discussion and Conclusion, I will discuss the result based on the part of Analyzing Data and discuss the results and the conclusion for Vietnamese tourists' behaviors towards green hotels in Vietnam in particular; leading to one for tourists's behaviors towards green hotels in Asia based on the research context.

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4 RESEARCH FINDINGS

To collect the data, I prepared 10 questions including tourists' backgrounds, their value and quality attributes, their feelings towards green hotels and their overall image towards environmental-friendly hotels. 79 respondents are from Vietnam since the topic of the thesis is to find out Vietnamese behaviors towards green hotels. The hotel was chosen to deliver the survey is Hotel Vietnam, which is defined as one of the greenest hotels in Vietnam. They were chosen randomly but are expected to be high-profiled to answer the questionnaires. After 2 weeks, the answers were collected from hotel's manager and were converted to an appropriate and comprehensive data set on Excel.

In this section, we introduce the main findings of this research. The process of Research Findings will go from the analysis of Tourists' backgrounds to the test of Exploratory Factor Analysis and Linear Regression to the test of reliability; and finally the conclusion of this Research Findings part.

Firstly, the background including tourists' gender and age, their education level and their income level, their frequency of going to a hotel in a year and their goal of their travel were analyzed. The results were shown in percentages.

Secondly, Exploratory Factor Analysis is used to check the dimensions with Cognitive Image, Affective Image and Overall Image. the definition of Cognitive Image (CI), Affective Image (AI) and Overall Image (OI) were already explained. Cognitive Image (CI) was evaluated by the literature of business, tourism and hospitality (Baloblu & McCleary, 1999; Beerli & Martin, 2004; Golden et al., 1987; Lin et al., 2007). While Affective Image (AI) was measured by the literature builded up by Russel and Snodgrass (1987) while Overall Image (OI) was builded up by the framework proposed by Baloglu & McCleary (1999) and Beerli & Martin (2004). The



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analysis of Exploratory Factor Analysis for CI, AI and OI are shown in a variety of EFA's methods, tables and figures below. The test of reliability was estimated by Cronbach's alpha, that is considered the most important reliability index as well as the most important index of internal consistency. Principal Components Analysis is applied to determine the construct validity. The test of Bartlett Test of Sphericity to check whether the subscales are inter-independent and The Test of KMO to examine sample sufficiency.

Thirdly, the test of Linear Regression is to test the correlation between three variables in 3 Hypotheses. In these different hypotheses, there are different Independent Variables and Dependent Variables. They are shown as below:

- Hypothesis 1: Cognitive Image has positive impacts on Affective Image

In this hypothesis, Cognitive Image is Independent Variable and Affective Image is Dependent Variable.

- Hypothesis 2: Cognitive Image has positive impacts on Overall Image

In this hypothesis, Cognitive Image is Independent Variable and Overall Image is Dependent Variable.

- Hypothesis 3: Affective Image has positive impacts on Overall Image

In this hypothesis, Affective Image is Independent Variable and Overall Image is Dependent Variable



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Fourthly, I will use Cronbach's alpha as the test of reliability to test if the measurement of Exploratory Factor Analysis are reliable.

Finally, I will conclude, based on the test of Exploratory Factor Analysis, Linear Regression and the test of Reliability, a result which show briefly the dimensions of three variables and the correlation of each hypothesis.

4.1 The analysis of Tourists' Backgrounds

34% of the respondents were males while females' part was counted as 45 %. Most of the respondents are holding Undergraduate and Graduate degrees. Most of them were highly paid from their works as salaries range from 20 million to 30 million or even over 30 million. They travel usually once a month or 2-4 times per year. 3 people rarely had time to travel as they spent yearly 5-7 times or 6 people for every month. Their travel common goals are to traveling and for works.

4.2. The analysis of Exploratory Factor Analysis

1) Exploratory Factor Analysis for Cognitive Image

Firstly, I measure EFA for Cognitive Image. The test will show which Factor (belongs to Value Attribute or Quality Attribute) will have stronger dimension than the other; in the other words, which Attributes in Cognitive Image (Value Attribute or Quality Attribute) are more valuable and more important. In this analysis, three first Factor belong to Value Attribute and the other belong to Quality Attribute.



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Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
A green hotel offers good value for money	6,00	,679	79
The price charged by green hotel is reasonable	6,15	,753	79
A green hotel offers good quality/benefit	6,14	,711	79
A green hotel has hygienic and attractive dining areas	6,22	,762	79
Restaurant(s) in a green hotel offer fresh and healthful food	6,18	,797	79
A green hotel offers healthy amenities and products	6,27	,796	79
A green hotel offers healthy "green" guest bedrooms	6,25	,808	79
Staying at a green hotel is safe	6,22	,842	79
Services at a green hotel meet my needs and expectations	6,14	,930	79
The facilities and atmosphere of a green hotel are preferable	6,18	,902	79

Table 1 Descriptive Statistics (Cognitive Image)

Table 1 Descriptive Statistics for Cognitive Image shows the Mean value of every factor belongs to Value Attribute and Quality Attribute.

All Mean value in the table are shown > 1.



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KMO and Barlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,852
Barlett's Test of Sphericity	Approx. Chi-Square	794,113
	df	45
	Sig.	,000

Table 2: KMO & Barlett's Test (Cognitive Image)

KMO & Barlett's Test is the first step called "The Correlation Matrix". In the table, KMO's value is 0,852, which is $0.5 \leq KMO \leq 1$. In addition, in Barlett's Test, Sig. ≤ 0.05 . The factor analysis is appropriate to proceed.

Total Variance Explained							
Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		Extraction Sums of Squared Loadings	Rotation Sums of Squared Loadings
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,866	68,662	68,662	6,866	68,662	68,662	6,107
2	1,020	10,200	78,863	1,020	10,200	78,863	5,860
3	,710	7,099	85,962				
4	,363	3,631	89,593				
5	,283	2,832	92,425				
6	,246	2,465	94,889				
7	,182	1,821	96,710				
8	,163	1,633	98,343				
9	,117	1,171	99,514				
10	,049	,486	100,000				

Extraction Method: Principal Component Analysis

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance



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Table 3: Total Variance Explained (Cognitive Image)

Table 3 Total Variance Explained for Cognitive Image shows the Eigenvalue statistics and Variance percents. With the Screeplot, it illustrates Step 2 of EFA called Factor Extraction. 10 factors, which effect on Cognitive Image generally were summarized using Principal Component Methods, consist of A green hotel offers good values for money, The price charged at green hotel is reasonable, A green hotel offers good quality/benefits, A green hotel has hygienic and attractive dining areas, Restaurants in green hotel offers fresh and healthy foods, A green hotel offers healthy amenities and products, A green hotel offers “green” guest bedrooms, Staying at green hotel is safe, Services at green hotel meets my needs and expectations and The facilities at green hotel is preferable.

Table 3 indicates that Factor 1 and 2 with Eigen Values >1 are meaningful. Factors 1 and 2 explains 68,662% and 10,200% of the variance respectively – a cumulative total of 78,862%. The Extracted Sums of Squared Loadings provide the similar information.

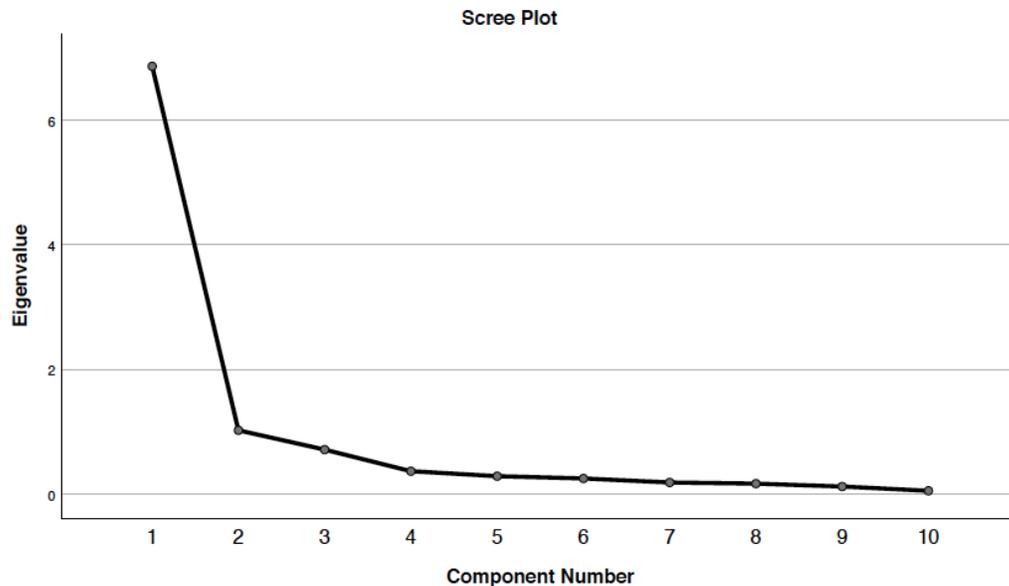


Figure 9: Screenplot (Cognitive Image)

Figure 9 Scree Plot for Cognitive Image presents the results of the table Total Variance Explained, according to related above factors. In other words, as similar to eigenvalue, this graph helps to decide which factors are extracted and which factors are remained. The plot shows that there are 2 significant high factors (1 and 2) and starting from factor 3, the curve starts to gradually slope. Even though, factor three in the graph is illustrated as higher than other extracted factors. As Thompson (1988) suggested that The Screeplot is more accurate than the table of Eigen Value despite the fact that it sometimes tend s to over extract factors, factor 1,2,3 are remained according to the graph.



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Correlation Matrix		
	Component	
	1	2
A green hotel offers good value for money	,781	,280
The price charged by green hotels is reasonable	,825	,256
A green hotel offers good quality/benefit	,819	-,230
A green hotel has hygienic and attractive dining areas	,836	-,223
Restaurants in a green hotel offer fresh and healthy food	,863	-,355
Services at a green hotel meet my needs and expectations	,843	-,377
The facilities and atmosphere of a green hotel are preferable	,844	-,324
Staying at a green hotel is safe	,760	,464
Services at a green hotel meets my need and expectations	,853	,390
The facilities and atmosphere of a green hotel are preferable	,857	,182
Extraction Method: Principal Component Analysis		
2 components extracted		

Table 4: Component Matrix (Cognitive Image)

Table 4 Component Matrix for Cognitive Image indicate factor loading of tested factors.

Varimax Rotation Methods is used in Step 3, which is Factor Rotation. In Component 1, all above factors loading are above 0,5 and high while in Component 2, all factors are below 0.5 and quite small. Table 4 shows all factors are able to rotated correspondingly.



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To conclude, in Step 4, final decision will be made to decide which factors will be remained and rotated.

The graph Screeplot agreed that Factor 1, 2 and 3 will be remained. Table Component Matrix tested Factor Rotation suggested that all factors are able to be rotated. With remaining factors as Factor 1, Factor 2 and Factor 3, these factors become suitable for determining the effectiveness of this research.

2) Exploratory Factor Analysis for Affective Image

I measure EFA for Affective Image to measure which feelings are the most significant amongst the others. There are 4 adjectives, which define tourists’ feelings in the test (Arousing, Pleasant, Exciting and Relaxing).

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
Staying in a green hotel will be [Arousing]	6,24	,720	79
Staying in a green hotel will be [Pleasant]	6,34	,815	79
Staying in a green hotel will be [Exciting]	6,35	,801	79
Staying in a green hotel will be [Relaxing]	6,33	,796	79

Table 5: Descriptive Statistics (Affective Image)

Table 5 Descriptive Statistics for Affective Image shows the Mean value of every factor. All Mean value in the table are shown < 1.



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KMO and Barlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,861
Barlett's Test of Sphericity	Approx. Chi-Square	320,803
	df	6
	Sig.	,000

Table 6: KMO & Barlett's Test (Affective Image)

Step 1 The Correlation Matrix starts by KMO & Barlett's Test. In the table 6, KMO's value is 0,861 which is $0.5 \leq KMO \leq 1$. In addition, in Barlett's Test, Sig. ≤ 0.05 . The factor analysis is suitable to these statements.

Total Variance Explained						
Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		Extraction Sums of Squared Loadings
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,462	86,558	86,558	3,462	86,558	86,558
2	,293	7,319	93,877			
3	,148	3,697	97,574			
4	,097	2,426	100,000			

Extraction Method: Principal Component Analysis

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance

Table 7: Total Variance Explained (Affective Image)

Table 7 Total Variance Explained for Cognitive Image shows the Eigenvalue statistics and Variance percent. With the Screeplot, it illustrates Step 2 of EFA called Factor Extraction. 4 factors, which effect on Affective Image in general were summarized using Principal Component Methods, consist of Staying in Green Hotel will be arousing, Staying in Green Hotel will be pleasant, Staying in Green Hotel will be exciting, Staying in Green Hotel will be relaxing.

Table 7 indicates that Factor 1 with Eigen Values >1 is meaningful. Factors 1 and 2 explains 686,558% and 7,319% of the variance respectively – a cumulative total of 93,877%. The Extrated Sums of Squared Loadings provide the similar information.

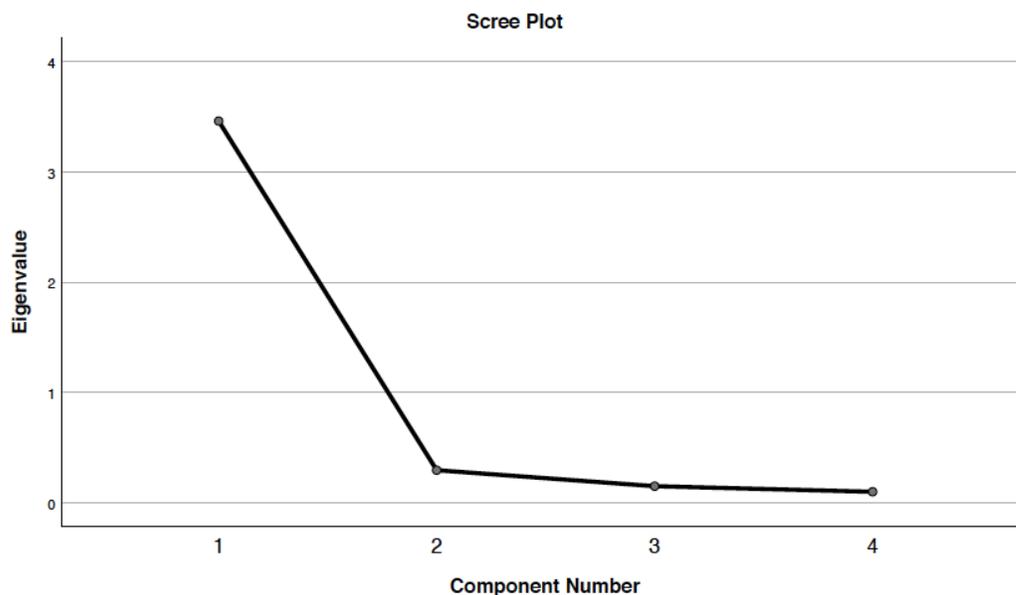


Figure 10: Screenplot (Affective Image)

Figure 10 Scree Plot for Affective Image presents the results of the table Total Variance Explained, according to related above factors. This is the Step 3 of the analysis. Alike to eigenvalue, this graph helps to decide which factors are extracted and which factors are remained. The plot shows that factor 1 is significantly higher than 3 other factors; in addition, starting from factor 3, the curve starts to gradually slope. According to Thomas, The Screeplot is more accurate than Total Variance Explained table; therefore, factor 1 and 2 are remained after the process of factor extraction.



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Correlation Matrix	
	Component
	1
Staying in a green hotel will be [Arousing]	,881
Staying in a green hotel will be [Pleasant]	,930
Staying in a green hotel will be [Exciting]	,958
Staying in a green hotel will be [Relaxing]	,950
Extraction Method: Principal Component Analysis	
1 component extracted	

Table 8: Component Matrix (Affective Image)

Table 8 Component Matrix for Affective Image describes Step 3 as Factor Rotation to decide which factors are able to rotated. As shown in Table 8, all factors are above 0.5 and has pretty high statistics. With step 2, Factor 1 and 2 are decided to remain. That is to say, Factor 1 and 2 are rotated respectively.

Factor 1 and 2 in the analysis for Affective Image can remain. These are shown being proficient and effective for the analysis.

3) Exploratory Factor Analysis (Overall Image)

Finally, I measure EFA for Overall Image. The test will show how tourists’s overall image in different situations towards green hotels. To be more particular, which overall image has more values than the other in tourists’ behaviors.



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Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
Overall image of staying in green hotel is	6,52	,551	79
Overall image I have regarding green hotels is	6,25	,869	79
Overall image, I consider that green hotels have a favorable image such that I consider to stay in eco hotel	6,41	,760	79

Table 9: Descriptive Statistics (Overall Image)

Table 9 Descriptive Statistics for Overall Image shows the Mean value of every factor. All Mean value in the table are shown < 1.

KMO and Barlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,586
Barlett's Test of Sphericity	Approx. Chi-Square	127,777
	df	3
	Sig.	,000

Table 10: KMO & Barlett's Test (Overall Image)

Step 1 The Correlation Matrix starts by KMO & Barlett's Test. In the table 10, KMO's value is 0,586 which is $0.5 \leq KMO \leq 1$. In addition, in Barlett's Test, Sig. ≤ 0.05 . The factor analysis is suitable to these statements, despite the low value of KMO.



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Total Variance Explained						
Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		Extraction Sums of Squared Loadings
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,185	72,843	72,843	2,185	72,843	72,843
2	,691	23,033	95,876			
3	,124	4,124	100,000			

Extraction Method: Principal Component Analysis

Table 11: Total Variance Explained (Overall Image)

Table 11 Total Variance Explained for Overall Image shows the Eigenvalue statistics and Variance percentage. With the Screeplot, it illustrates Step 2 of EFA called Factor Extraction. 3 factors, stands for Overall Image were summarized using Principal Component Methods, consist of Overall Image of staying in Green Hotel is, Overall Image I have regarding Green Hotel is and Overall, I consider that green hotels have a favorable image such that I consider to stay in eco hotels.

Table 11 indicates that Factor 1 with Eigen Values >1 is meaningful. Factors 1 and 2 explains 72,843% and 23,033% of the variance respectively – a cumulative total of 95,876%. The Extracted Sums of Squared Loadings provide the similar information.

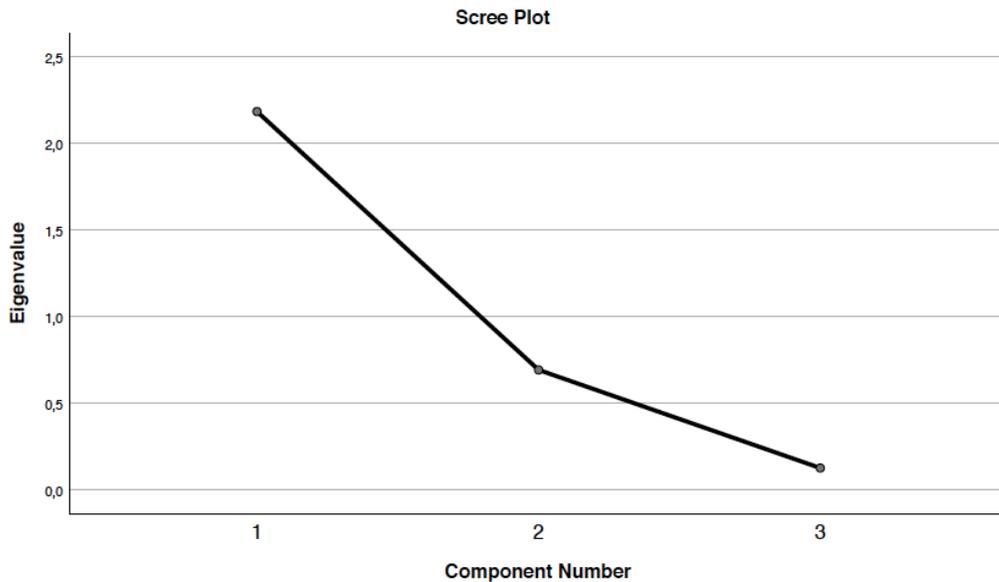


Figure 11: Screenplot (Overall Image)

Figure 11 Scree Plot for Overall Image illustrate the results of the table Total Variance Explained, according to related above factors. This is the Step 2 of the analysis. Alike to eigenvalue, this graph helps to decide which factors are extracted and which factors are remained. The plot shows that factor 1 and 2 are significantly higher than factor 1 and only factor drops at the lowest bend of the curve. As Factor 1 and 2 can remain according to analysis in Principal Component Analysis, the Screeplot shows the possibility of Factor 1 and Factor 2 in step 2 of the analysis.

Correlation Matrix	
	Component
	1
Overall image of staying in green hotels is	,677



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Overall image I have regarding green hotels is	,916
Overall, I consider that green hotels have a favourable image such that I consider to stay in eco hotel	,942
Extraction Method: Principal Component Analysis	
1 component extracted	

Table 12: Component Matrix (Overall Image)

Table 12 Component Matrix for Overall Image show that all 3 factors own high statistics value and are all above 0.5. As only Factor 1 and Factor 2 are likely to remain, therefore, only Factor 1 and Factor 2 are able to be rotated according to Table 12.

Step 4 as Interpretation result shows that Factor 1 and Factor 2 are chosen to be illustrated significantly affect on the variable Overall Image.

4.3 The analysis of Linear Regression

This part aims to test the hypothesis based on the research questions:

- a. Hypothesis 1: Cognitive Image (CI) has positive impacts on Affective Image (AI).
- b. Hypothesis 2: Cognitive Image (CI) has positive impacts on Overall Image (OI).
- c. Hypothesis 3: Affective Image has positive impacts on Overall Image (OI).



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a. Hypothesis 1: Cognitive Image (CI) has positive impacts on Affective Image (AI)

Descriptive Statistics			
	Mean	Std. Deviation	N
affectiveimage	1,57971	,18227	79
cognitiveimage	,6173	,06621	79

Table 13: Descriptive Statistics (H1)

Table 13 Descriptive Statistic for *Hypothesis 1: Cognitive Image has positive impacts on Affective Image* shows the mean averages for independent variable (cognitive image) and dependent variable, affective image (Staying in a green hotel will be). For instance, the average mean of Cognitive Image (DV) is 0,6173 and Affective Image (Staying in green hotel will be) is 1,5791.

Correlation			
		affectiveimage	cognitiveimage
Pearson Correlation	affectiveimage	1,000	,602
	cognitiveimage	,602	1,000
Sig. (1-tailed)	affectiveimage		
	cognitiveimage	,000	
N	affectiveimage	79	79
	cognitiveimage	79	79

Table 14: Correlation (H1)

Table 14 Correlation for *Hypothesis 1*. Pearson's Correlation between dependent variable Affective Image (Staying in Green Hotel will be) and itself is 1; also independent variable Cognitive Image and itself must be 1. Pearson's Correlation between Cognitive Image and

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Affective Image is 0.0602. The Pearson's r is close to 1 and positive, which means there are strong relationship between two variables. There are changes in one variable and strongly correlated with changes in the other ones. In addition, the two variables also increase in value in terms of positive correlation. The rate of both Cognitive Image (IV) and Affective Image (IV) increase or decrease in value respectively.

Sig (1-Tailed) value is 0, less than 0.05, which does mean that there is statistically correlation between two variables DV and IV. The significant increase in one variable is also related to the increase of another variable. In other words, according to this case, the increasing rate of Cognitive Image relate to the increasing rate of Affective Image.

Model Summary										
					Change Statistics					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig.F Change	Durbin-Watson
1	.602 ^a	.362	.354	.14650	.362	43,748	1	77	.000	1,370
a. Predictors: (Constant), cognitiveimage										
b. Dependent variable: affectiveimage										

Table 15: Model Summary (H1)

Table 15 Model Summary (H1) shows the result of predictive variable (Independent variable) in multiple regression analysis. Adjusted R Square $0.354 * 100 = 35,4\%$ is which not very large. This percentage explains the total variance in the dependent variable (Affective Image) and independent variable (Cognitive Image). $35,4\%$ is not very large, therefore the impact of



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Cognitive Image in Affective Image is not very strong, according to the sample size that are tested.

Durbin-Watson test is another assumption, that indicates the independence of observations.

Table 15 shows Durbin-Watson statistic is 1,370, therefore, the data has positive autocorrelation.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	,939	1	,939	43,748	,000 ^b
	Residual	1,653	77	,021		
	Total	2,591	78			
a. Dependent Variable: affectiveimage						
b. Predictors: (Constant), cognitiveimage						

Table 16: Anova (H1)

Table 16 Anova for H1 shows if there is a statistically significant relationship of the variability in the dependent variable from variability in the independent variable. In this Anova's test, $p < 0.0005$, less than 0,05. Therefore, the model predicts statistically the outcome variable. The correlation is positive in another sample size.

Coefficients ^a								
Model		95,0% Confidence Interval for B		Correlation			Collinearity Statistics	
		Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	,246	,866					
	cognitiveimage	1,158	2,156	,602	,602	,602	1,000	1,000
a. Dependent Variable: affectiveimage								

Coefficients ^a					
Model		Unstandardized Coefficients		Standardized Coefficients	Sig.
		B	Std. Error	Beta	
				t	



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1	(Constant)	,556	,156		3,576	,001
	cognitiveimage	1,657	,251	,602	6,614	,000
a. Dependen Variable: affectiveimage						

Table 17: Coefficient (H1)

Table 17 Coefficients for *H1* indicates the multicollinearity of the predictive variables, which include the Tolerance levels and VIF (Variance Inflation Factor). It also predicts Affective Image (DV) to Cognitive Image (IV), and whether Cognitive Image as Independent Variable will contribute statistically significantly to the model. By testing this, Sig statistics is below 0,05, which means cognitive image contributes significantly to the model and the variable is meaningful.

Variance Inflation Factor (VIF) explains the multicollinearity in regression analysis. VIF = 1 means there are no multicollinearity and there is no correlation between IV.

Third symbol in the table is Beta (β), which ranges from 0 to 1 or 0 to -1 and it also depends on the direction of the relationship. If the value is close to 1 or -1, the relationship is stronger. β is 0,602, which closes to 1. The relationship is strong between IV and DV.

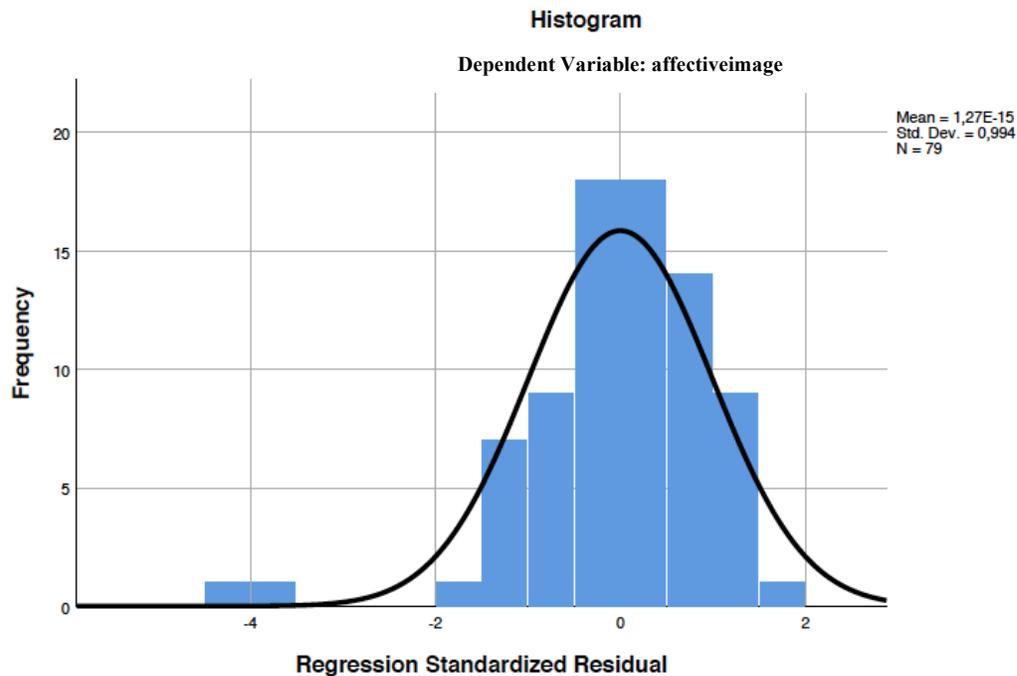


Figure 12: Histogram (H1)

Figure 12 Histogram for *H1* is a quantitative data's bar graph. This shows the density concentration of many variable of Cognitive Image has impact on Affective Image. The Standard Deviation is closely to 1 and Mean = 01.15E-15 close to 0; thus, there is no huge deviation from being a normal distribution.

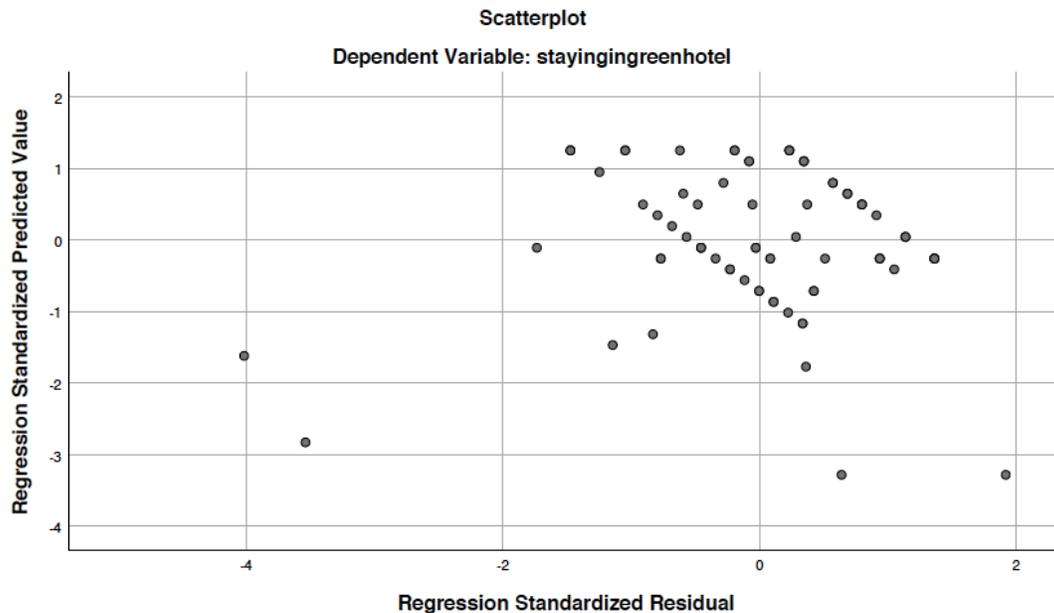


Figure 13: ScatterPlot for H1

Figure 13 Scatter Plot for *H1* shows the correlation between DV as Affective Image and Predictive Variable as Cognitive Image, by a bar graph with dot cluster. *H1*'s Scatter Plot with dot cluster does not show a very strong or weak relationship between two variables.

b. Hypothesis 2: Cognitive Image (CI) has positive impacts on Overall Image (OI).

Descriptive Statistics			
	Mean	Std. Deviation	N
overallimage	2,1308	,20958	79
cognitiveimage	,6173	,06621	79

Table 18: Descriptive Statistics (H2)



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Table 18 Descriptive Statistic for *Hypothesis 2: Cognitive Image has positive impacts on Overall Image* shows the mean averages for IV (Cognitive Image) and DV (Overall Image). For instance, the average mean of Cognitive Image (DV) is 0,6173 and Affective Image (Staying in green hotel will be) is 2,1308.

Correlation			
		overallimage	cognitiveimage
Pearson Correlation	overallimage	1,000	,753
	cognitiveimage	,753	1,000
Sig. (1-tailed)	overallimage	.	,000
	cognitiveimage	,000	.
N	overallimage	79	79
	cognitiveimage	79	79

Table 19: Correlations (H2)

Table 19 Correlation for *Hypothesis 2*. Pearson’s Correlation between Independent Variable (Cognitive Image) and itself is 1 and also Dependent Variable (Overall Image) and itself must be 1 obviously. Pearson’s Correlation between Cognitive Image and Overall Image is 0.753. There is strong positive relationship between two variables since Pearson’s statistics is positively close to 1. Changes in one variable is correlated with ones in other variables. Regarding the changes in value, the rate of both Cognitive Image and Overall Image increase or decrease in value respectively.

Sig (1-Tailed) value is 0, less than 0.05, which does mean that there is statistically correlation between two variables DV and IV. Thus, the increasing rate of Cognitive Image relate to the increasing rate of Overall Image.



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Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.753 ^a	.567	.562	.13876	.567	100,955	1	77	.000	1,744
a. Predictors: (Constant), cognitiveimage										
b. Dependent variable: overallimage										

Table 20: Model Summary (H2)

Table 20 Model Summary (H1) shows the result of predictive variable (Independent variable) in multiple regression analysis. Adjusted R Square $0.562 * 100 = 56,2\%$ is which is pretty large. This percentage explains the total variance in the dependent variable (Overall Image) and independent variable (Cognitive Image). $56,2\%$ is pretty large, therefore the impact of Cognitive Image on Overall Image is pretty strong, according to the sample size that are tested.

Durbin-Watson test is another assumption, that indicates the independence of observations. Table 11 shows Durbin-Watson statistic is 1,744, therefore, the data has no autocorrelation between variables.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,944	1	1,944	100,955	.000 ^b
	Residual	1,482	77	.019		
	Total	3,426	78			
a. Dependent Variable: overallimage						
b. Predictors: (Constant), cognitiveimage						

Table 21: ANOVA (H2)



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Table 21 Anova for H2 shows if there is a statistically significant relationship of the variability in the dependent variable from variability in the independent variable. In this Anova's test, $p < 0.0005$, less than $0,05$. Hence, the correlation is positive in also other sample size.

Coefficients ^a								
Model		95,0% Confidence Interval for B		Correlation			Collinearity Statistics	
		Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	,366	,952					
	cognitiveimage	1,912	2,857	,753	,753	,753	1,000	1,000

b. Dependent Variable: overallimage

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,659	,147		4,473	,000
	cognitiveimage	2,384	,237	,753	10,048	,000

b. Dependent Variable: overallimage

Table 22: Coefficients (H2)

Table 22 Coefficients for H2 indicates the multicollinearity of the predictive variables, which include the Tolerance levels and VIF (Variance Inflation Factor). It predicts from Overall Image (DV) to Cognitive Image (IV), and whether Cognitive Image as Independent Variable will contribute statistically significantly to the model. By testing this, Sig statistics is below $0,05$, which means cognitive image contributes significantly to the model and the variable is meaningful.

Variance Inflation Factor (VIF) = 1, which means that there are no multicollinearity and there is no correlation between IV.

Third symbol in the table is Beta (β), which ranges from 0 to 1 or 0 to -1. If the value is close to 1 or -1, the relationship is stronger. β is 0,753, which closes to 1. The relationship is strong between IV and DV.

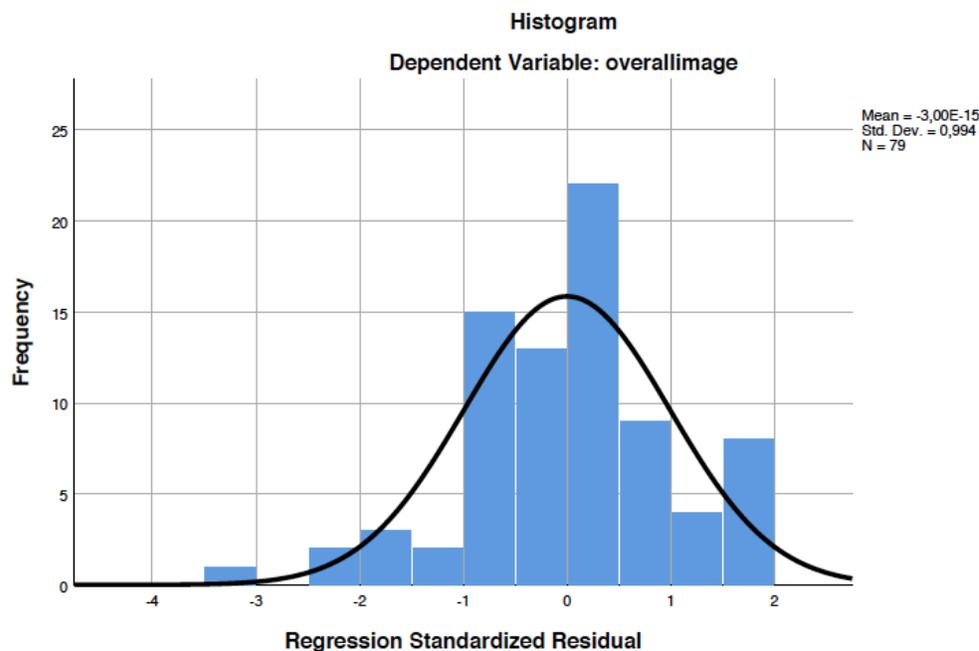


Figure 14: Histogram (H2)

Figure 14 Histogram for *HI* is a quantitative data's bar graph. This shows the density concentration of many variable of Cognitive Image (Independent Variables) has impact on Overall Image (Predictive Variables). The Standard Deviation is closely to 1 and Mean = 03,00E015, far to 0; thus, there is huge deviation from being a normal distribution.

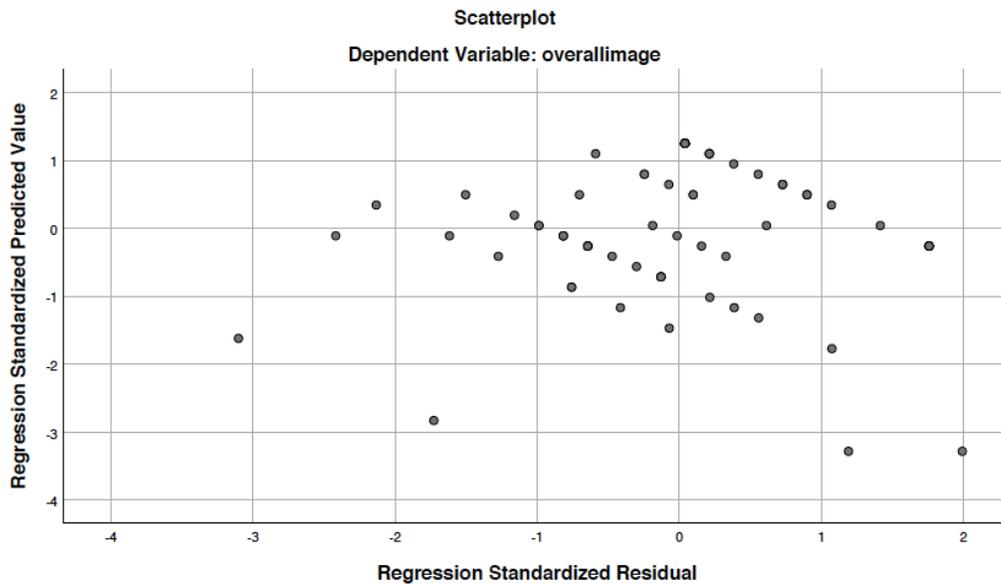


Figure 15: ScatterPlot for H2

Figure 15 Scatter Plot for *H2* shows the correlation between DV as Overall Image and Predictive Variable as Cognitive Image, by a bar graph with dot cluster. *H1*'s Scatter Plot with dot cluster does not show a very strong or weak relationship between two variables.

The linear analysis for Hypothesis 2 concludes

- c. Hypothesis 3: Affective Image has positive impacts on Overall Image (OI).

Descriptive Statistics			
	Mean	Std. Deviation	N
overallimage	2,1308	,20958	79



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affektiveimage	1,5791	,18227	79
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Table 23: Descriptive Statistics (H3)

Table 23 Descriptive Statistic for *Hypothesis 3: Affective Image has positive impacts on Overall Image* shows the mean averages for IV (Affective Image) and DV (Overall Image). For instance, the average mean of Affective Image (DV) is 1,5791 and Overall Image is 2,1308.

Correlation			
		overallimage	affektiveimage
Pearson Correlation	overallimage	1,000	,746
	affektiveimage	,746	1,000
Sig. (1-tailed)	overallimage	.	,000
	affektiveimage	,000	.
N	overallimage	79	79
	affektiveimage	79	79

Table 24: Correlations (H3)

Table 24 Correlation for *Hypothesis 3*. Pearson’s Correlation between Independent Variable (Affective Image) and itself is 1 and also Dependent Variable (Overall Image) and itself must be 1 obviously. Pearson’s Correlation between Affective Image and Overall Image is 0.746. There is strong positive relationship between two variables since Pearson’s statistics is positively close to 1. In other words, changes in one variable is correlated with ones in other variables. Regarding the changes in value, the rate of both Cognitive Image and Overall Image increase or decrease in value respectively.

Sig (1-Tailed) value is 0, less than 0.05, which does mean that there is statistically correlation between two variables DV and IV. Thus, the increasing rate of Cognitive Image relate to the increasing rate of Overall Image.



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Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					
					R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.746 ^a	.557	.551	.14037	.557	96,876	1	77	.000	1,766
a. Predictors: (Constant), affectiveimage										
b. Dependent variable: overallimage										

Table 25: Model Summary (H3)

Table 25 Model Summary (*H3*) shows the result of predictive variable (Independent variable) in multiple regression analysis. Adjusted R Square $0.551 * 100 = 55,1\%$ is which is pretty large. This percentage explains the total variance in the dependent variable (Overall Image) and independent variable (Affective Image Image). Hence, the impact of Affective Image on Overall Image is pretty strong, according to the sample size that are tested.

Durbin-Watson test is another assumption, that indicates the independence of observations. Table 25 shows Durbin-Watson statistic is 1,766, therefore, the data has no autocorrelation between variables.

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,909	1	1,909	96,876	.000 ^b
	Residual	1,517	77	.020		
	Total	3,426	78			
a. Dependent Variable: overallimage						
b. Predictors: (Constant), affectiveimage						

Table 26: ANOVA (H3)



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Table 26 Anova for *H3* shows if there is a statistically significant relationship of the variability in the dependent variable from variability in the independent variable. In this Anova's test, $p < 0.0005$, less than $0,05$. Hence, the correlation is positive in also other sample size.

Coefficients ^a								
Model		95,0% Confidence Interval for B		Correlation			Collinearity Statistics	
		Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	,500	1,052					
	affectiveimage	,685	1,032	,746	,746	,746	1,000	1,000

c. Dependent Variable: overallimage

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	,776	,139		5,595	,000
	affectiveimage	,858	,087	,746	9,843	,000

c. Dependent Variable: overallimage

Table 27: Coefficients (*H3*)

Table 27 Coefficients for *H3* indicates the multicollinearity of the predictive variables, which include the Tolerance levels and VIF (Variance Inflation Factor). It predicts from Overall Image (DV) to Affective Image (IV), and if Affective Image as Independent Variable will contribute statistically significantly to the model. By testing this, Sig statistics is below $0,05$, which means Affective Image contributes significantly to the model and the variable is meaningful.

Variance Inflation Factor (VIF) = 1, which means that there are no multicollinearity and there is no correlation between IV.

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Third symbol in the table is Beta (β), which ranges from 0 to 1 or 0 to -1. If the value is close to 1 or -1, the relationship is stronger. β is 0,746, which closes to 1. The relationship is strong between IV and DV.

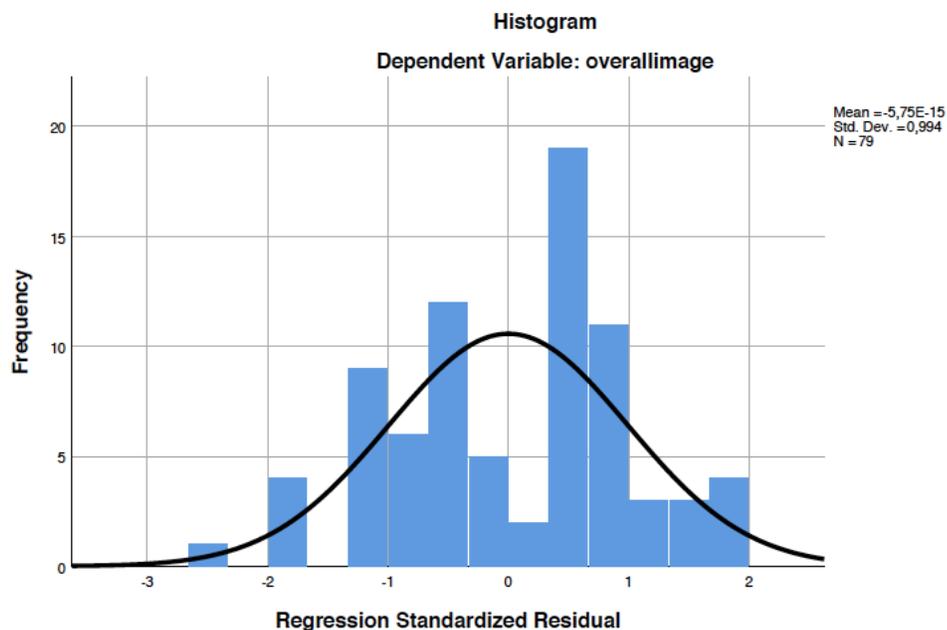


Figure 16: Histogram (H3)

Figure 16 Histogram for $H3$ is a quantitative data's bar graph. This shows the density concentration of many variable of Affective Image (Independent Variables) has impact on Overall Image (Predictive Variables). The Standard Deviation is closely to 1 and Mean = -5,75E0-15, far to 0; thus, there is huge deviation from being a normal distribution.

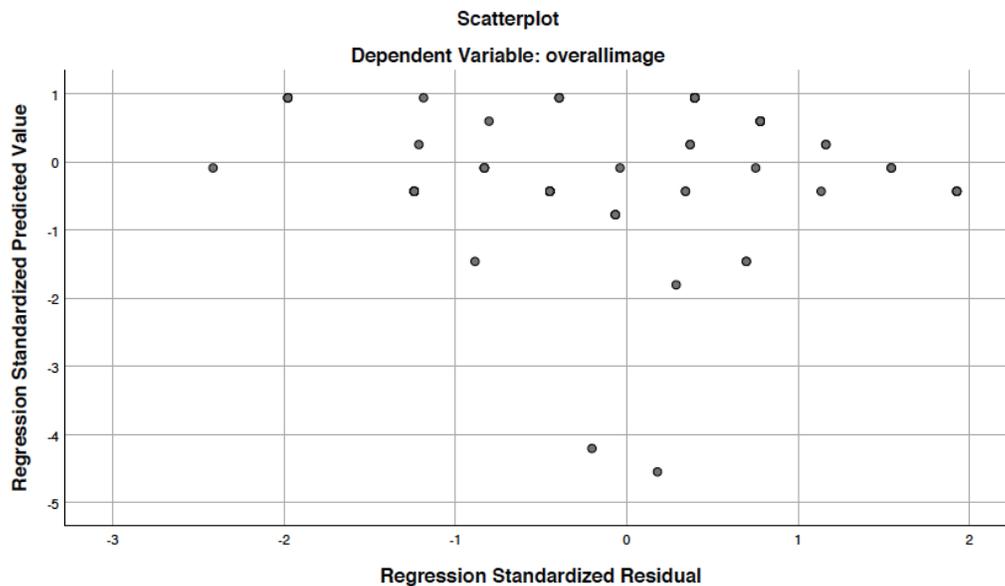


Figure 17: ScatterPlot for H3

Figure 17 Scatter Plot for *H3* shows the correlation between DV as Overall Image and Predictive Variable as Affective Image, by a bar graph with dot cluster. *H1*'s Scatter Plot with dot cluster does not show a very strong or weak relationship between two variables.

4.4. The test of reliability for Exploratory Factor Analysis and Linear Regression

4.4.1. Exploratory Factor Analysis

Cronbach's alpha is used to evaluate and estimate the reliability of multi-item scales. Results for each construct are shown in Table below: Cognitive Image (0,948), Affective Image (0,948) and Overall Image (0,810).



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All the alpha coefficients exceeded 0.7 (Nunnally, 1978), showing a high degree of internal consistency for each construct.

	Cognitive Image	Affective Image	Overall Image
Reliability	0,948	0,948	0,810
Standard Deviation	0,798		
Mean			

Table 28: The Test of Reliability

a. The conclusion of EFA for Cognitive Image

To sum up, after the final reliability test, the test of Exploratory Factor Analysis for Cognitive Image lead to the three remained factors, which are A green hotel offers good value for money, The price charged by green hotels is reasonable and A green hotel offers good quality/benefits. To explain, all Mean value are shown <1 and also Eigenvalue of Factor 1,2 >1 are meaningful. Finally, along with the reliability test of 0,948, the Screeplot concluded that Factor 1, 2 and 3 are remained since all the three Factor in the graph is illustrated higher than other extracted factors. It does show that the dimensions of Value Attribute (including Factor 1 (A green hotel offers good value for money), Factor 2 (The price charged by green hotels is reasonable) and Factor 3 (A green hotel offers good quality/benefits)) are stronger than the dimensions of Quality Attribute (including the other Extracted Factors).

b. The conclusion of EFA for Affective Image

The test of Exploratory Factor Analysis for Affective Image, with a reliability of 0,948, in conclusion, results in the remain of Factor 1 (Staying in a green hotel will be Arousing) and Factor 2 (Staying in a green hotel will be Pleasant). All Mean value are shown > 1 and

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Eigenvalue of Factor 1 and Factor 2 are > 1 . With the help of Principal Component Analysis and Screeplot, which illustrates the curve in the graph of Factor 1 and Factor 2 are higher than the other extracted factor, I conclude that Factor 1 and Factor 2 are meaningful in this analysis.

The dimension of Factor 1 (Staying in a green hotel will be Arousing) and Factor 2 (Staying in a green hotel will be Pleasant) are stronger than the other extracted factor.

c. The conclusion of EFA for Overall Image

The test of reliability and the test of EFA for Overall Image results in the meaningful dimension of Factor 1 (Overall Image of staying in green hotel is) and Factor 2 (Overall image I have regarding green hotels is) are stronger than the other extracted Factor 3 (Overall, I consider that green hotels have a favorable image such that I consider to stay in eco hotel). To explain a bit more, all Mean value are shown > 1 with Eigenvalue of Factor 1 and Factor 2 are meaningful. The Screeplot finally shows that the curve of Factor 1 and Factor 2 are higher than Factor 3.

4.4.2. Linear Regression

I. Hypothesis 1: Cognitive Image has positive impacts on Affective Image

The test of Linear Regression for Hypothesis 1 shows the strong correlation between Cognitive Image and Affective Image. The Pearson's of both variable are close to 1, which mean positive; leading to the increase and decrease in value of both variables respectively. With a $\beta = 0,602$, which is close to 1, it does mean the strong relationship between Cognitive Image and Affective Image.

The strong relationship between two variables support Hypothesis 1. A Cognitive Image (Value Attributes and Quality Attributes) positively influenced a Affective Image.

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II. Hypothesis 2: Cognitive Image has positive impacts on Overall Image

The test of Linear Regression for Hypothesis 2 demonstrates a strong relationship between Cognitive Image and Overall Image. Both variables are increased or decreased in value respectively thanks to the Pearson's close to 1. With a $\beta = 0,659$ close to 1, it does mean that there is a strong correlation between two variables.

The result shows that Hypothesis 2 is supported.

III. Hypothesis 3: Affective Image has positive impacts on Overall Image

The test of Linear Regression for Hypothesis 3 shows a strong relationship between Affective Image and Overall Image. Thanks to the Pearson's Correlation of 0,746, which is close to 1 and a $\beta = 0,776$, which is close to 1, it shows the strong correlation between variables.

It then also shows that Hypothesis 3 is supported.

In conclusion, three Hypothesis are all supported and demonstrates strong relationship between variables. Cognitive Image was found to influence positively on Affective Image and Overall Image, while Overall Image was also affected by Affective Image. This result implies practically that both Vietnamese tourists' knowledges on green hotels are as involved as their emotions and feelings to determine an Overall Image of green hotel. It does show clearly that there are a significant increase of knowledge and feeling towards the value of green hotels and also, Vietnamese tourists are more aware of the destructive consequence of climate change.



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5. DISCUSSION

The findings of this research contribute to the theory of planned behavior confirming some of the main impact in a new cultural context, Vietnam in particular and South East Asia in general. I first study the analysis of the research findings is aiming to explain the research questions and hypotheses results. Second, I discuss the main implication to literature and theories, and the practical implications. In general, the overall findings suggested that eco-friendly hotel image increased the favorable behaviors by hotel guests.

5.1 Population traits

The findings also demonstrate some population traits and behavior.

First, there is a higher percentage of females than ones of males who answered the survey. Second, most of the tourists have higher education level, and higher income in Vietnam. This is consistent with the literature review above that Anderson & Cunningham (1972) agreed that people with a high level of education and high income have more tendency to belong to ecologically conscious consumer group. And moreover, women are more environmentally conscious than men. Especially, income is one vital contributor that effect on environmental behaviors since green products cost more than the basic type of products. Last but not least, their travel's goals are equal between traveling and works. Although Millar et al (2012) discussed about the differences between the perception on environmental friendly hotels in the mindset between leisure travelers and businesses that businesses tend to look for green products/services for their comfortable stays while leisure travelers are likely to engage more frequently into green programs provided in green hotels, this research does not show what the differences between these Vietnamese tourists' goals regarding their environmental behaviors.

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5.1.2 Cognitive Image, Affective Image and Overall Image

Briefly, the results of EFA show what Vietnamese tourists value when choosing green hotels to stay regarding their Beliefs and Knowledges (as Cognitive Image), their Feelings (as Affective Image) and their Overall Behaviors (as Overall Image). First of all, Vietnamese tourists have a positive cognitive image on green hotels as they believe that such eco-friendly hotels offer a reasonable charged price, their services provide good qualities and benefits as well as in their opinion, staying in green hotels is an ideal financially investment. According to Steg & Vlek (2009), Motivational Factors and Contextual Factors in Pro-environmental theory are ones that affect on consumer's environmental behaviors. The Theory of Weighing Costs and Benefits, which belong to Motivational Factors, is consistent with the finding of Cognitive Image. Steg & Vlek (2009) found that more and more socio-economic group of consumers nowadays are likely to purchase products with higher costs but are beneficial to environmental protection. In the context of Vietnamese tourists in Hotel Vietnam, they value the green quality and benefits that green hotels bring to the guests. Second of all, concerning the Feelings of Vietnamese tourists towards green hotels, they feel Arousing and Pleasant towards their stay in green hotels. As consistent with the theory of Pro-environmental Behavior, tourists are concerning the advantages that green hotels could bring to their stays and the surrounding environment. Lastly, concerning the overall behaviors of Vietnamese guests in Hotel Vietnam towards green hotels, their overall image regarding green hotels and their stays in green hotels are positive. This is a positive contribution (Overall Image) of their Beliefs and Knowledges (Cognitive Image) and their Feelings (Affective Image). As discussed by Kotler, Haider and Rein (1993), Overall Image is contributed by Cognitive Image and Affective Image.

The results of Linear Regression show that all hypotheses are supported and there are strong correlations between Cognitive Image, Affective Image and Overall Image. That is to say, firstly, guests' feeling and emotions are strongly affected by guests' cognitive stimulus; and as well as



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guest's overall image towards green hotels (their drivers to choose green hotels to stay or not) are influenced significantly by guests' cognition and guests' feelings and emotions. This finding demonstrates the consistency of the findings with the theory of Image Formation; the theory of Perceived Behavioral Control and the theory of Pro-Environmental Behaviors.

To answer the research questions as “What are the drivers of Vietnamese tourists to choose green hotels to stay?” in the context of Hotel Vietnam, I need to answer two sub-questions as “What are the tourists' beliefs and knowledges on green hotels?” and “What are the tourists' feelings to choose green hotels?”. The first sub-question's goal is to figure out what Vietnamese tourists believe and are aware of green hotel in Vietnam. This question is regarded as cognitive stimulus of tourists towards green hotels. The finding displays that Vietnamese tourists are conscious of the benefits of environmental-friendly hotels bring to them. Green Hotels Association (2010) defined green hotels as “those are conducting their businesses by minimizing the usage of natural resources and saving the natural resources through efficiency”. These Vietnamese tourists with higher level of education and higher level of income know previously about what green hotel is and what green hotels' benefits are. Their beliefs and knowledges in this context are viewed as their cognitive stimulus as well as their prior knowledge on green hotels. Besides a good quality and benefits, a reasonable charged price, their knowledges are varied from Solid waste and Water programs, Energy programs to Biodiversity programs. For instance, Hotel Vietnam has promoted their hotel as providing environmental-friendly rooms and the materials used in their rooms are recyclable. Furthermore, as they are engaging in the program of saving natural resources, their rooms are equipped with energy, water environmental-efficient technologies. The second sub-question is “What are the tourists' feelings to choose green hotels?”. The finding shows that Vietnamese tourists in Hotel Vietnam feel Arousing and Pleasant towards green hotels. Their positive and curious emotions contribute significantly to their decision to choose green hotels.



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5.1.3 Contribution to the literature

With a combination of the theory of Image Formation, Literature Review and the Research Findings, I can conclude that these parts are consistent and connected with each other based on the discussion above. So, this research leads to the literature of Image formation, expanding the analysis to the South Asian context.

The theory of image formation as cognitive image and affective image contribute to overall Image, is consistent with the finding of this research. Affective image and overall image are affected by cognitive image in Vietnamese tourists. Meanwhile, overall image is influenced by affective image. That is to say, Vietnamese tourists' beliefs and feelings contribute to their behaviors towards green hotels. Furthermore, they are pleasant and curious and conscious of the long-term benefits of green hotels bringing to guests as a great value or money, a reasonable hotel price and a number of green products and qualities provided in the green hotels.

The findings contribute greatly to the The Theory of Planned Behavior that consumers always have an awareness of what products or services offer them before intend to purchase it or not. It contributes to Green consumption, especially in the consumer profile that in these recent years, the group of ecologically-conscious consumers are in higher education with higher income since green products are more expensive than others; and most of women intend to use green products/services than men. It contributes to Green hospitality in Vietnam in particularly that tourism in Vietnam has developed, however, in order to maintain the flora and fauna, it is a must to keep destination to be green and should have more green accommodations to offer consumers.

5.1.4 Contribution to practice in Vietnam



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Based on the results of Vietnamese tourists' behavior towards green hotels, a question of how can hoteliers guarantee that a green hotel is a great choice for tourists. The answer would be an ideal strategy on green positioning as positioning is the process of creation of an image in consumers. (Lewis, 1990). According to Hartmann, Ibanez and Sainz (2005), a proficient and effective strategy focusing on green positioning is a combination of functional (cognition) attributes and emotional (affection) benefits. He pointed out an example of Hilton International Hotel chain as promoting the concept of a hotel transforming into a green hotel. They have promoted their eco-friendly concept by their usage of recyclable materials in the guestrooms such as pure cotton and wool; as well as the room are prepared with energy and water technologies. However, according Aaker (1996), a cognitive positioning strategy cannot make sure that the hotel will own a great green positioning. The simple reason is that their cognitive position strategy is able to be copied by their competitors. It is challenging to compare between functional (cognitive) attributes and emotional (affection) benefits; in other words, which one contributes significantly to hotel green positioning. In this context, Aaker discussed that emotional benefits is a vital complement to functional attributes in order to lead to a great positioning strategy for green hotel. Emotional benefits can be categorized into (1) Altruistic manner (Ritov & Kahnemann (1977)); (2) Socially conscious consumption of green products/services (Belz & Dyllik (1996)) and (3) a nature loving manner (Kals, Schumacher, & Montada (1999)). That is to say, not only the knowledges on green hotels are important in tourists but also their feelings about utilizing hotels' green services are actually contributing to a solution of saving the planet. Therefore, green hotels are effectively advertised with a collective combination of functional attributes and emotional benefits; or in the other words, advertising should show that it makes a great change for the planet when tourists by choosing green hotels during their stays.

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6. CONCLUSION

It is no doubt that our society is running by firms that are contributing more and more into business ethics, socio-economic awareness and social accountability. Not only other industries but also tourism industry has been alerted about a number of environmental destructions resulted by hospitality and tourism. Therefore, many countries have adopted green strategies into their tourist industries. European and Asian nations in general have adopted legislations and green strategies into their tourism industries. In particularly, an eco-hotel image could be a attempting tool to attract guests.

In Asian countries and particularly South East Asian countries, tourism is one of the most developing and growing industries. All leaders from SAARC agreed to promote South East Asian countries as a sustainable destination for foreign tourists. Vietnamese government adopted new tourism action as “Strategy on Vietnam’s tourism development until 2020, vision to 2030” to drive eco-cultural tourism or in other words, green tourism with discovery of culture and ethnic minorities.

This thesis figured out finally factors that result in Vietnamese tourists’ overall behaviors to choose green hotels to stay. However, there are still some limitations during the research methods and during the questionnaires.

- ✚ The hypotheses were tested as Cognitive Image, Affective Image and Overall Image have strong relationship with each other. In addition, the tests of factor analysis showed that Vietnamese tourists’ drivers to green hotels are related to such beliefs and knowledges on prices and high quality/benefits and their feelings as Arousing and Pleasant during their stays in green hotels. The tests were done by 79 Vietnamese tourists in Hotel Vietnam,

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which is the greenest hotel in Vietnam. However, the result can overall embrace general Vietnamese population whether they want to choose green hotels or not. Other factors related to services, green restaurants might also affect their decisions as well.

- ✚ 10 questionnaires in every survey and 79 surveys were answered by Vietnamese guests that stayed in Hotel Vietnam, which is defined as green hotel in Vietnam. As our respondents are expected to be high-educated to collect more valuable and more qualified surveys, there were still risks to collect the answers from guests who do not have any knowledges on green hotels. Therefore, in the future researches, author could find out more ways to get access to more high-educated visitors to get better results.
- ✚ Questionnaires in the surveys are quite clear and comprehensive for tourists to answers. However, it could bring more detailed results when surveys include questions on green programs including in green hotels such as stated in theoretical parts.

Some researches that are listed in the Research Context have demonstrated that Asian countries such as China, Malaysia and Taiwan where tourists have a correlation with environmental behaviors and their intention to stay in ecological-friendly hotels. This thesis's research shows that Vietnamese tourists' overall behaviors do have correlation with their knowledges and their feelings to intend to choose green hotels for their travel. As discussed above, this research is limited to only 79 tourists who were staying in Hotel Vietnam; therefore, it might not picture the overall behaviors of Vietnamese tourists in general.

Nevertheless, as I discussed about green positioning strategy above, it might be important for further research to explore how Vietnam government impose more green strategies on hospitality industries and there are more advertisement for hotels towards a message of saving our planet in Vietnam. This strategy can also be applied into other Southeast-Asian countries and Asian countries in general, a continent where tourists has developed significantly in the recent years.



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APPENDICES

Survey questionnaire used in this master thesis

11. What is your gender?

Select one answer

- Male
- Female

12. What is your age?

Select one answer

- 20 – 29 years old
- 30 – 39 years old
- 40 – 49 years old

13. What is your education level?

Select one answer

- Preliminary school certification
- High school certification
- Undergraduate Degree
- Graduate Degree
- Post Graduate Degree
- Doctoral Degree



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14. What is your income level?

Select one answer

- 1 million VND - 10 million VND
- 11 million VND - 20 million VND
- 21 million VND - 30 million VND
- More than 30 million VND

15. How often do you go to a hotel during a year?

- Never
- once a year
- 2-4 times a year
- 5-7 times a year
- every month

16. What is the most important goal of your travel

- Business
- Vacation
- Visiting friends
- Temporary housing
- other: specify

17. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Strongly Disagree (=1), Disagree (=2), Slightly Disagree (3) Neither Agree/Nor Disagree (=4), Slightly agree (=5) Agree (=6), Strongly Agree (=7)

- A green hotel offers good value for money
1 2 3 4 5 6 7
- The price charged by green hotels is reasonable
1 2 3 4 5 6 7
- A green hotel offers good quality/benefits



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1 2 3 4 5 6 7

18. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Strongly Disagree (=1), Disagree (=2), Slightly Disagree (3) Neither Agree/Nor Disagree (=4), Slightly agree (=5) Agree (=6), Strongly Agree (=7)

○ A green hotel has hygienic and attractive dining areas
1 2 3 4 5 6 7

○ Restaurant(s) in a green hotel offer fresh and healthful food
1 2 3 4 5 6 7

○ A green hotel offers healthy amenities and products
1 2 3 4 5 6 7

○ A green hotel offers healthy “green” guest bedrooms
1 2 3 4 5 6 7

○ Staying at a green hotel is safe
1 2 3 4 5 6 7

○ Services at a green hotel meet my needs and expectations
1 2 3 4 5 6 7

○ The facilities and atmosphere of a green hotel are preferable
1 2 3 4 5 6 7

○ Overall, the rooms and accommodations at a green hotel are clean and comfortable
1 2 3 4 5 6 7



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19. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Strongly Disagree (=1), Disagree (=2), Slightly Disagree (3) Neither Agree/Nor Disagree (=4), Slightly agree (=5) Agree (=6), Strongly Agree (=7)

Staying at a green hotel will be

Arousing

1 2 3 4 5 6 7

Pleasant

1 2 3 4 5 6 7

Exciting

1 2 3 4 5 6 7

Relaxing

1 2 3 4 5 6 7

20. Please, indicate your level of agreement with the following statements. Please, use the following scale:

Very negative (=1), negative (=2), Slightly negative (3) Neither negative/Nor positive (=4), Slightly positive (=5) positive (=6), Very positive (=7)

Overall image of staying in green hotels is

1 2 3 4 5 6 7

Overall image I have regarding green hotels is

1 2 3 4 5 6 7

Overall, I consider that green hotels have a favorable image such that I would consider staying there



Open your mind. LUT.
Lappeenranta University of Technology

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1 2 3 4 5 6 7